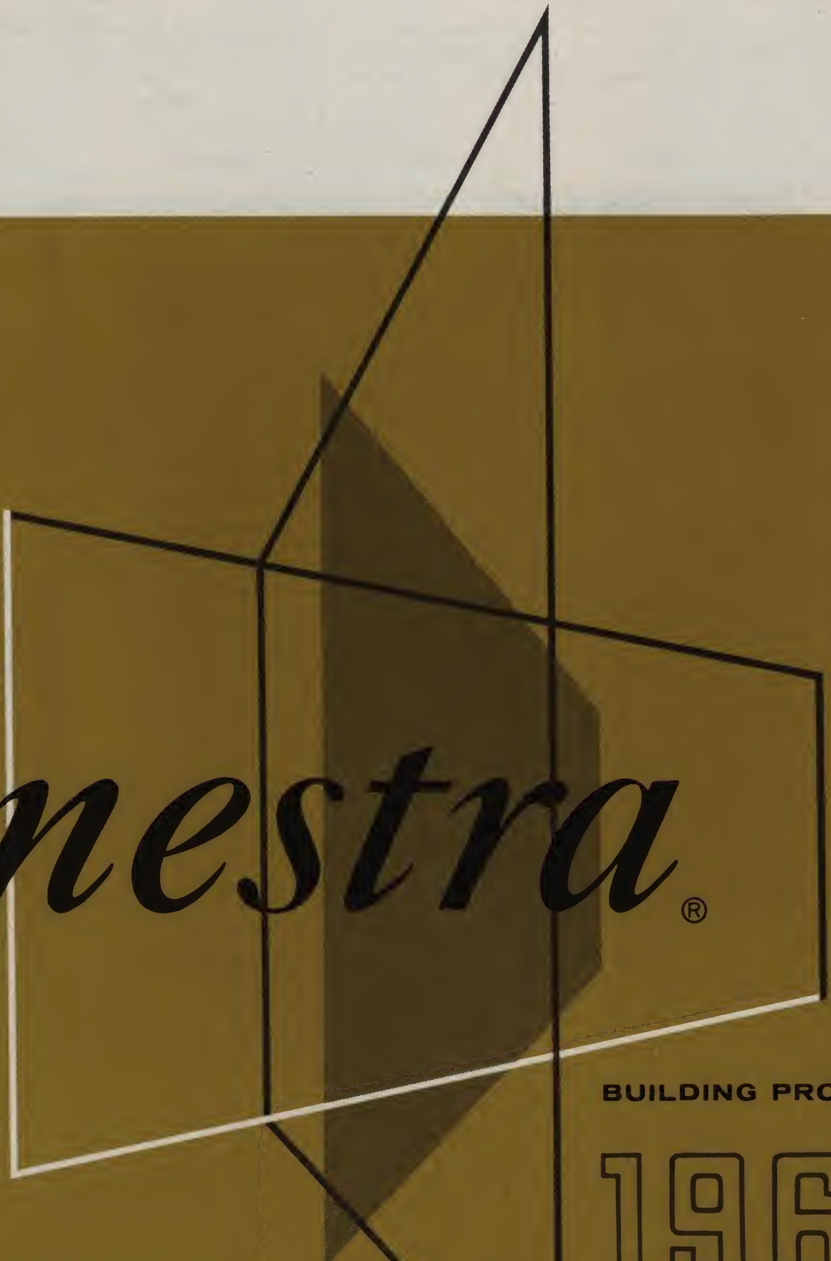
16b
Fe

hollow metal
complete door units
door + frame + hardware



Fenestra®
INCORPORATED

BUILDING PRODUCTS
1960

hollow metal doors

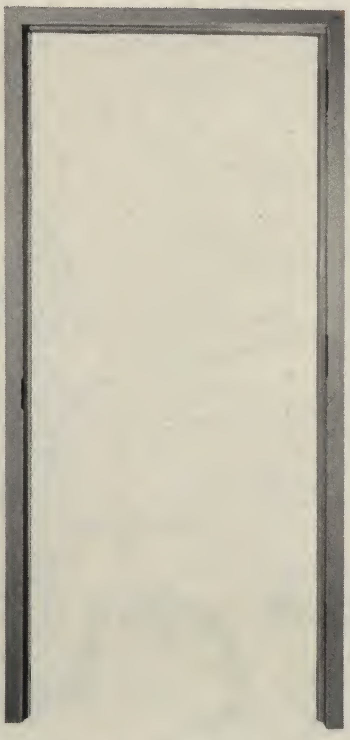
Fenestra again offers to the architectural profession and the general construction industry its improved and new full line of hollow metal door units.
They are designed in the widest selection of types and sizes for all structures from hotels to office buildings to industrial plants.

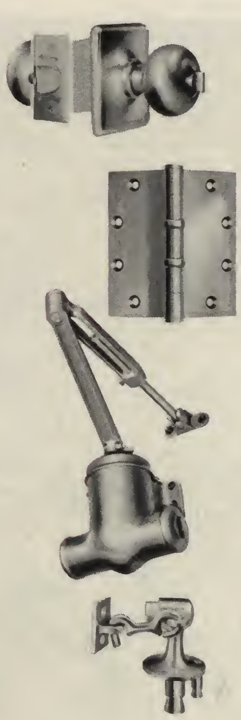
3 part package door units

The 3 part package door units come in many door designs and in a wide variety of leaf patterns. Door openings range from 1′-6″ x 6′-8″ to 4′-0″ x 8′-0″, with matching frames and a wide variety of hardware and accessories.

Fenestra offers the widest selection of standardized types and sizes for the 1¾″, 1⅜″ full flush and 1¾″ panel doors. Fenestra's quick delivery, low first cost, low installation and maintenance costs are all part of the package.

door + **frame** + **hardware**





a single source

In a single package you can get all the components for any door opening. Door, frame, hardware—all are co-ordinated to match perfectly. No shopping from source to source. A call to your local Fenestra Representative will handle it all.

quick delivery

With factories in six cities from Buffalo, New York, to Oakland, California; with 14 strategically located warehouses; and with company offices, distributors or agents in most localities; Fenestra is able to give prompt delivery and dependable service.

low-cost time saving installation

Fenestra Packaged Door Units are designed to go together faster, to save costly installation man-hours. Most machining, drilling and tapping is done at the factory.

No need to cut, fit and set jambs, stops or trim; countersink nails; putty holes; mortise frame and door for hinges, locks and strikes; or prime paint. All this is done before delivery.

assemble frame

install in wall

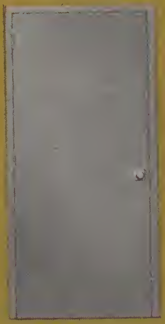
attach hinges, door

screw on hardware

1¾″ full flush

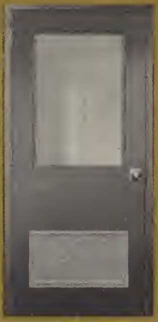
1¾″ ff

full flush

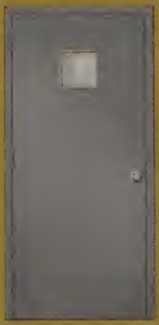


with glass

Fen-Air
(air conditioned)



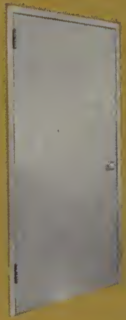
vision light



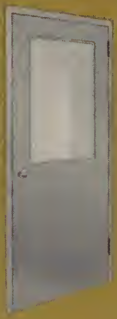
1⅜″ full flush

1⅜″ ff

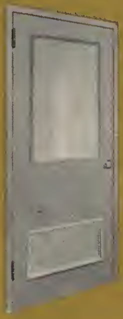
full flush



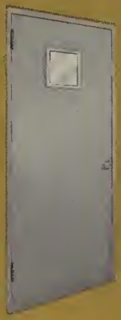
with glass



Fen-Air
(air conditioned)



vision light



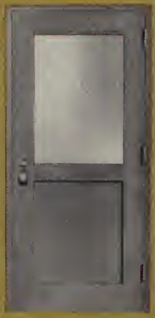
Underwriters' B Label

These doors available with Underwriters' B and C Label. For door and frame construction details and suitable hardware, see page 21.

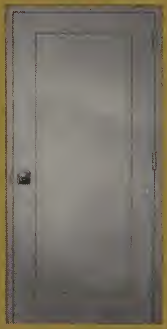
1¾″ panel

1¾″ p

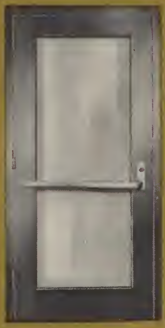
panel



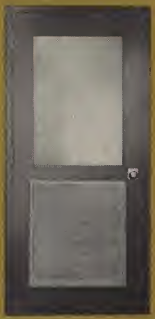
flush panel



entrance



Fen-Air
(air conditioned)



Underwriters' Doors

These doors pass 1½ hour tests and carry Underwriters' Labels B, C, D and E. For door and frame construction details and suitable hardware, see pages 28 and 29.

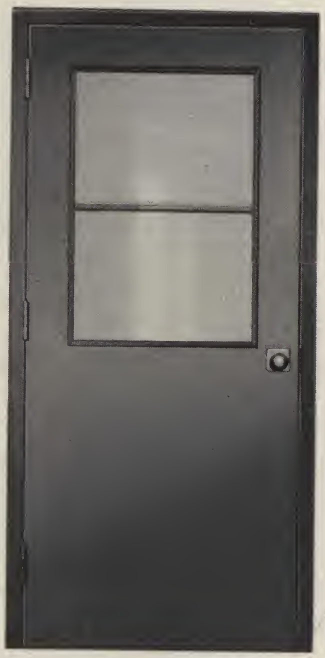
1¾″ full flush

The new distinctively styled 1¾″ full flush door is of an integral design and construction using heavy 16-gauge skins invisibly welded in over 200 places to a rugged roll-formed inner frame of C. R. steel. Hinges and lock areas are reinforced with 14-gauge sub-frame reinforcements. Each door is fused into a single, strong unit with a high performance sound deadening material applied inside to insure quiet operation.

The new 1¾″ door is built to precise standards. All mortising, drilling, tapping and prime-painting is completed at the factory. Every door is identical in appearance on both sides. They are carefully wrapped for shipment with heavy corrugated paper and secured by steel bands.

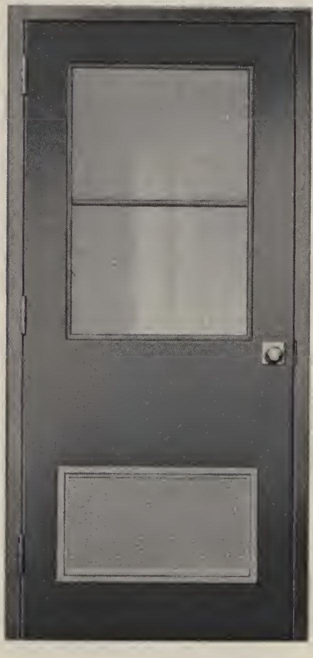
type M

This type full flush door is styled for use in schools, dormitories, hospitals, clinics, hotels, motels, office buildings, public buildings and commercial buildings.



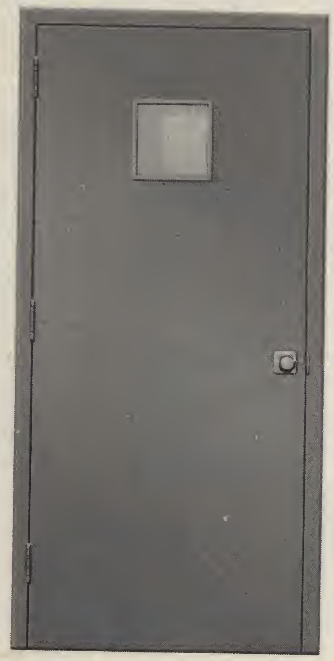
type G

The full flush door with glass comes in four leaf patterns and 28 sizes both in single and double doors.



Fen-Air (air conditioned)

This door has fin-type louvers—at the bottom, top or both—provides a handsome appearance as well as flexibility in buildings with air-conditioning and forced warm-air heating systems.



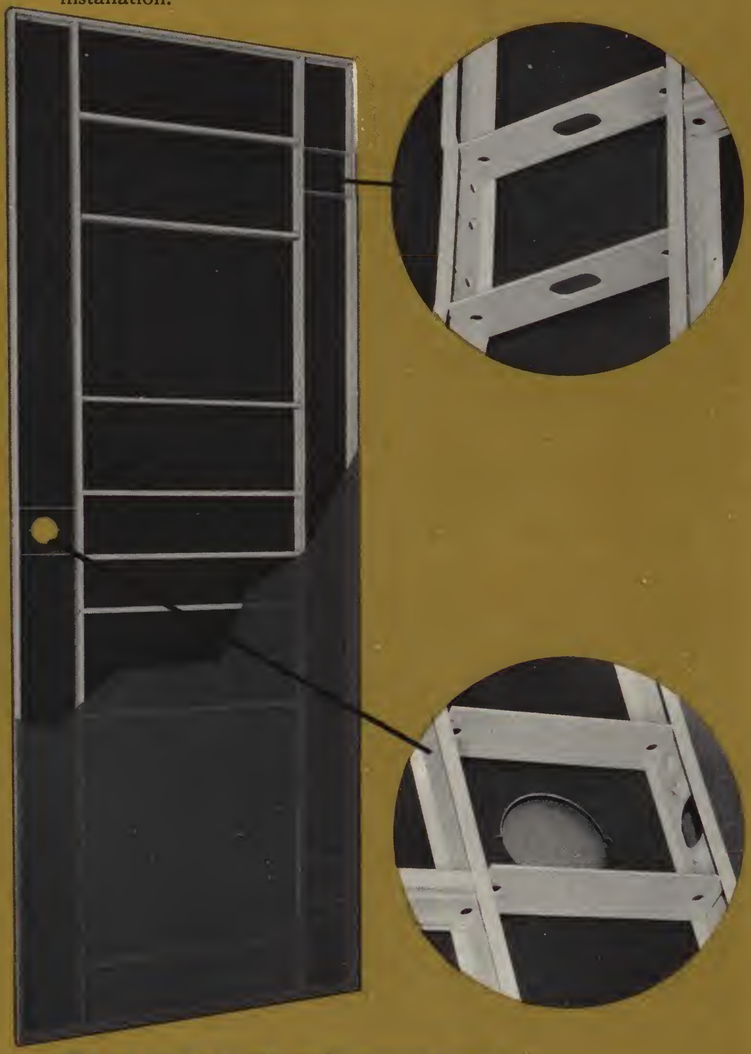
type V

The vision lite has a maximum of 100 square inches of light and are so constructed to permit easy installation of glass.

features

hinge reinforcement

Heavy-gauge mortised steel hinge reinforcement is welded to edge of door. Patented hinge filler allows hinge to be mounted for right or left swing, open in or open out. Eliminates handling problems on the job to speed up installation.

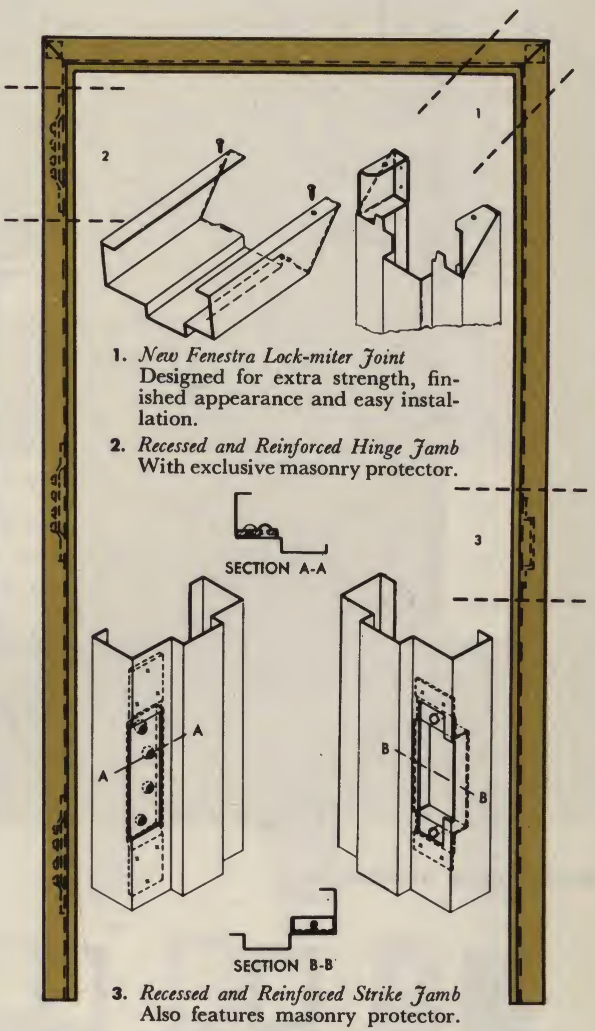


Fenestra lock reinforcement

Heavy-gauge steel reinforcement welded into door is drilled and tapped for installation of Fenestra hardware. No extra reinforcing material to buy or apply. Supplied extra strength for this important section of the door.

frames

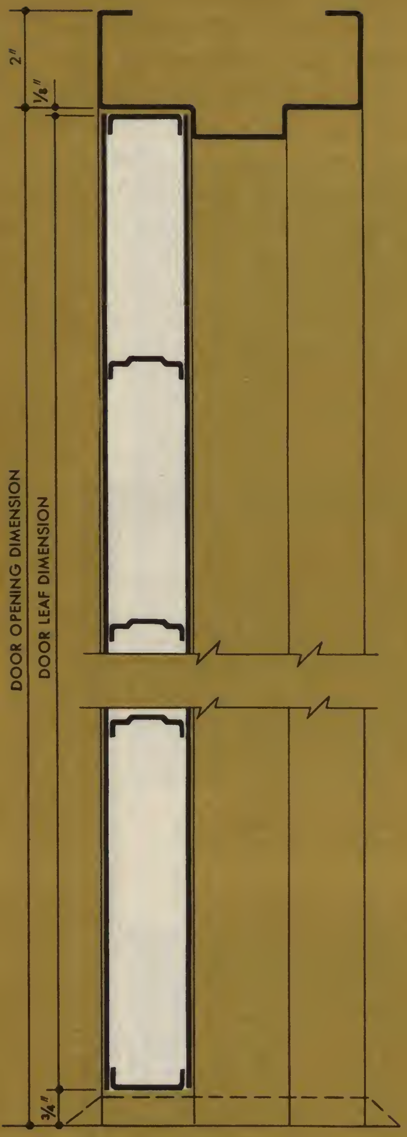
Stocked for single door openings for doors from 2′-0″ to 4′-0″ wide with 6′-8″ and 7′-0″ heights and double door openings for doors 5′-0″ to 8′-0″ wide with 6′-8″ and 7′-0″ heights (frames also available 8′-0″ high, for panel doors only), frame depth of 5½″, and 2″ on inside or outside face. 16-gauge rolled steel. Bonderized with a baked-on prime paint coat. Pre-fitted to door with standard clearances of ⅛″ at head and jambs, ¾″ at sill to permit ½″ threshold. Machined for hardware at factory rubber mutes to cushion closing. Jamb and sill anchors furnished for specified types of wall construction.



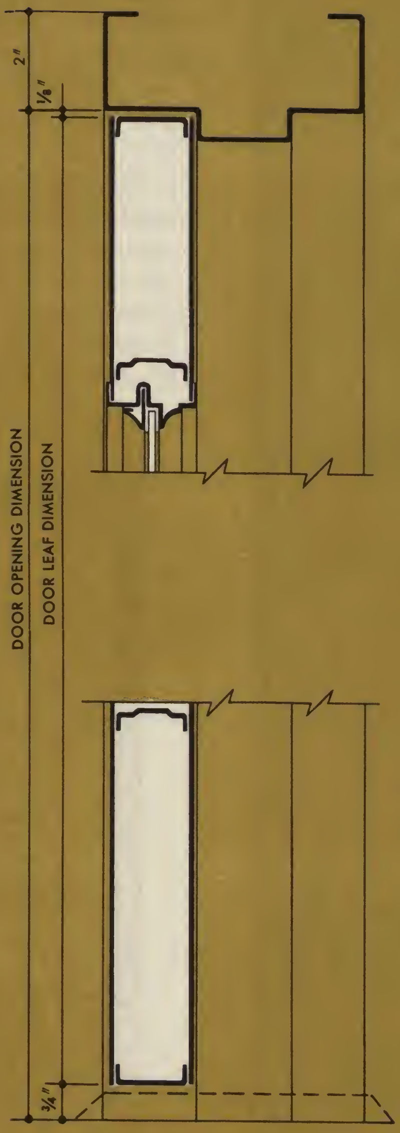
1. *New Fenestra Lock-miter Joint* Designed for extra strength, finished appearance and easy installation.
2. *Recessed and Reinforced Hinge Jamb* With exclusive masonry protector.
3. *Recessed and Reinforced Strike Jamb* Also features masonry protector.

1¾″ full flush

vertical sections

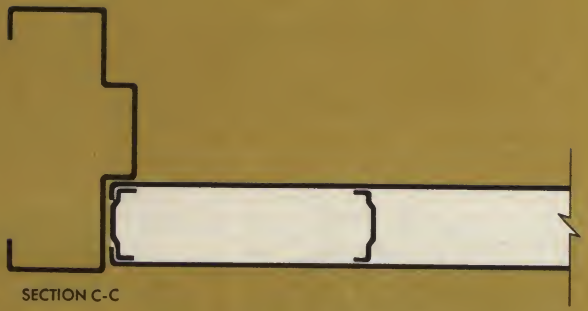


SECTION A-A

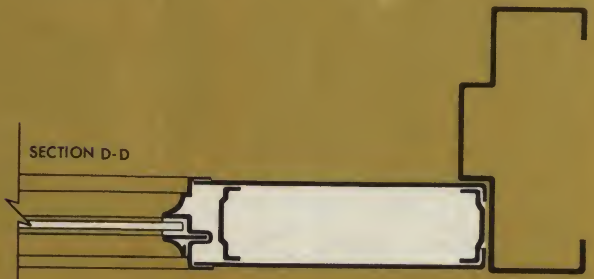


SECTION B-B

horizontal sections

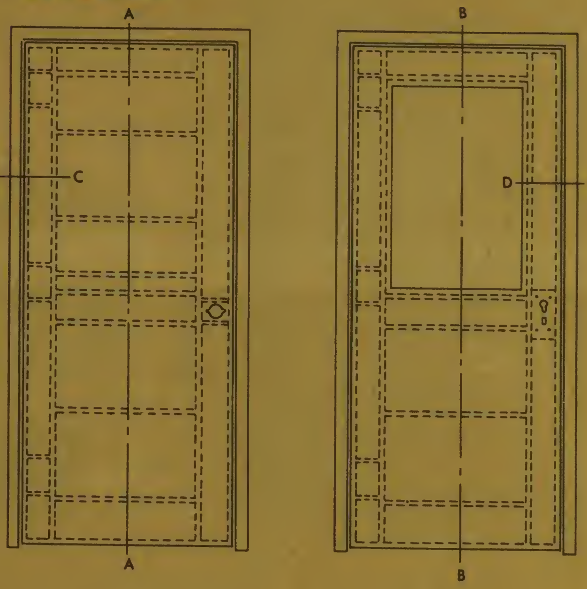


SECTION C-C



SECTION D-D

elevations



leaf types available

M

G

G2

G3

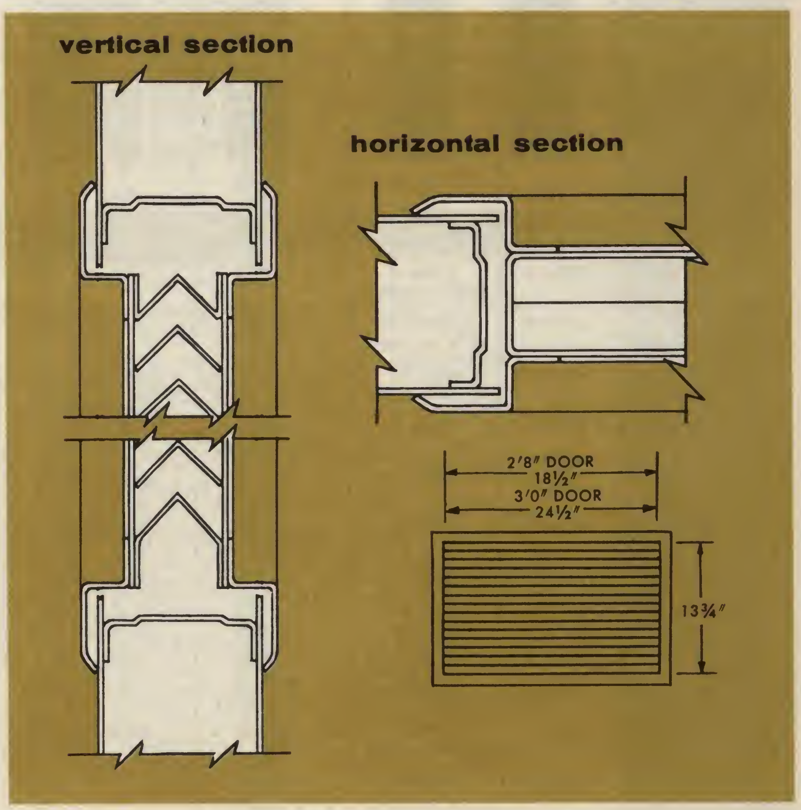
G4

V

L

Fen-Air (air conditioned)

Fenestra Fen-Air doors are fitted with new fin-type louvers at the bottom, top or both. This allows complete flexibility to choose the right amount of free air circulation needed for the most efficient cooling and heating design. Glass lights may be used as needed. Louvers stocked for two widths of doors.



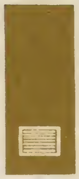
FL

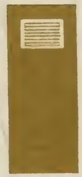
G2FL

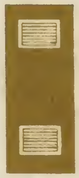
VFL

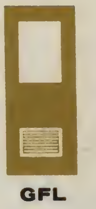
door type	door size	free air space upper panel louver	 lower panel louver	 upper & lower panel louvers
2868	2'-8" x 6'-8"	166 sq. in.	166 sq. in.	332 sq. in.
2870	2'-8" x 7'-0"			
3068	3'-0" x 6'-8"	220 sq. in.	220 sq. in.	440 sq. in.
3070	3'-0" x 7'-0"			

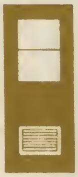
leaf types available

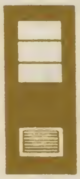

FL

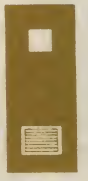

TFL


DFL


GFL


G2FL

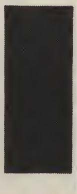
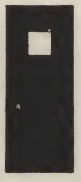
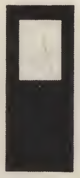
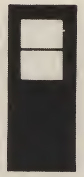
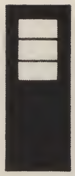
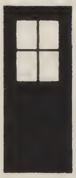
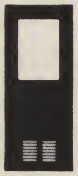
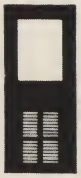

G3FL


VFL

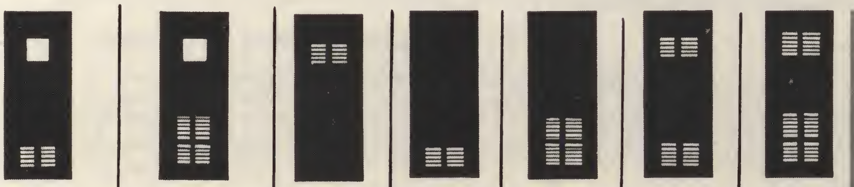
1¾″ full flush

selection table

Upper number designates Door Type.
Lower numbers are Glass Size.

Door Opening Dimension Width	Height	 M	 V	 G	 G-2	 G-3	 G-4	 GL	 GLL
single doors									
2′-0″	6′-8″	2068-M	2068-V 10¾″ x 10¾″						
	7′-0″	2070-M	2070-V 10¾″ x 10¾″						
2′-4″	6′-8″	2468-M	2468-V 10¾″ x 10¾″	2468-G 15⅜″ x 30⅜″	2468-G2 15⅜″ x 15 5⁄16″	2468-G3 15⅜″ x 10 1⁄16″		*2468-GL 15⅜″ x 30⅜″	*2468-GLL 15⅜″ x 30⅜″
	7′-0″	2470-M	2470-V 10¾″ x 10¾″	2470-G 15⅜″ x 34⅜″	2470-G2 15⅜″ x 17 3⁄16″	2470-G3 15⅜″ x 11⅜″		*2470-GL 15⅜″ x 34⅜″	*2470-GLL 15⅜″ x 34⅜″
2′-6″	6′-8″	2668-M	2668-V 10¾″ x 10¾″	2668-G 17⅜″ x 30⅜″	2668-G2 17⅜″ x 15 5⁄16″	2668-G3 17⅜″ x 10 1⁄16″		2668-GL 17⅜″ x 30⅜″	2668-GLL 17⅜″ x 30⅜″
	7′-0″	2670-M	2670-V 10¾″ x 10¾″	2670-G 17⅜″ x 34⅜″	2670-G2 17⅜″ x 17 3⁄16″	2670-G3 17⅜″ x 11⅜″		2670-GL 17⅜″ x 34⅜″	2670-GLL 17⅜″ x 34⅜″
2′-8″	6′-8″	2868-M	2868-V 10¾″ x 10¾″	2868-G 19⅜″ x 30⅜″	2868-G2 19⅜″ x 15 5⁄16″	2868-G3 19⅜″ x 10 1⁄16″		2868-GL 19⅜″ x 30⅜″	2868-GLL 19⅜″ x 30⅜″
	7′-0″	2870-M	2870-V 10¾″ x 10¾″	2870-G 19⅜″ x 34⅜″	2870-G2 19⅜″ x 17 3⁄16″	2870-G3 19⅜″ x 11⅜″		2870-GL 19⅜″ x 34⅜″	2870-GLL 19⅜″ x 34⅜″
3′-0″	6′-8″	3068-M	3068-V 10¾″ x 10¾″	3068-G 23⅜″ x 30⅜″	3068-G2 23⅜″ x 15 5⁄16″	3068-G3 23⅜″ x 10 1⁄16″		3068-GL 23⅜″ x 30⅜″	3068-GLL 23⅜″ x 30⅜″
	7′-0″	3070-M	3070-V 10¾″ x 10¾″	3070-G 23⅜″ x 34⅜″	3070-G2 23⅜″ x 17 3⁄16″	3070-G3 23⅜″ x 11⅜″		3070-GL 23⅜″ x 34⅜″	3070-GLL 23⅜″ x 34⅜″
3′-4″	6′-8″	3468-M	3468-V 10¾″ x 10¾″	3468-G 27⅜″ x 30⅜″			†3468-G4 13 11⁄16″ x 15 5⁄16″	†3468-GL 27⅜″ x 30⅜″	†3468-GLL 27⅜″ x 30⅜″
	7′-0″	3470-M	3470-V 10¾″ x 10¾″	3470-G 27⅜″ x 34⅜″			†3470-G4 13 11⁄16″ x 17 3⁄16″	†3470-GL 27⅜″ x 34⅜″	†3470-GLL 27⅜″ x 34⅜″
3′-8″	6′-8″	3868-M	3868-V 10¾″ x 10¾″	3868-G 31⅜″ x 30⅜″			†3868-G4 15 11⁄16″ x 15 5⁄16″	†3868-GL 31⅜″ x 30⅜″	†3868-GLL 31⅜″ x 30⅜″
	7′-0″	3870-M	3870-V 10¾″ x 10¾″	3870-G 31⅜″ x 34⅜″			†3870-G4 15 11⁄16″ x 17 3⁄16″	†3870-GL 31⅜″ x 34⅜″	†3870-GLL 31⅜″ x 34⅜″
4′-0″	7′-0″	4070-M	4070-V 10¾″ x 10¾″	4070-G 35⅜″ x 34⅜″			†4070-G4 17 11⁄16″ x 17 3⁄16″	†4070-GL 35⅜″ x 34⅜″	†4070-GLL 35⅜″ x 34⅜″
double doors									
5′-0″	6′-8″	5068-M	5068-V 10¾″ x 10¾″	5068-G 17⅜″ x 30⅜″	5068-G2 17⅜″ x 15 5⁄16″	5068-G3 17⅜″ x 10 1⁄16″		5068-GL 17⅜″ x 30⅜″	5068-GLL 17⅜″ x 30⅜″
	7′-0″	5070-M	5070-V 10¾″ x 10¾″	5070-G 17⅜″ x 34⅜″	5070-G2 17⅜″ x 17 3⁄16″	5070-G3 17⅜″ x 11⅜″		5070-GL 17⅜″ x 34⅜″	5070-GLL 17⅜″ x 34⅜″
5′-4″	6′-8″	5468-M	5468-V 10¾″ x 10¾″	5468-G 19⅜″ x 30⅜″	5468-G2 19⅜″ x 15 5⁄16″	5468-G3 19⅜″ x 10 1⁄16″		5468-GL 19⅜″ x 30⅜″	5468-GLL 19⅜″ x 30⅜″
	7′-0″	5470-M	5470-V 10¾″ x 10¾″	5470-G 19⅜″ x 34⅜″	5470-G2 19⅜″ x 17 3⁄16″	5470-G3 19⅜″ x 11⅜″		5470-GL 19⅜″ x 34⅜″	5470-GLL 19⅜″ x 34⅜″
6′-0″	6′-8″	6068-M	6068-V 10¾″ x 10¾″	6068-G 23⅜″ x 30⅜″	6068-G2 23⅜″ x 15 5⁄16″	6068-G3 23⅜″ x 10 1⁄16″		6068-GL 23⅜″ x 30⅜″	6068-GLL 23⅜″ x 30⅜″
	7′-0″	6070-M	6070-V 10¾″ x 10¾″	6070-G 23⅜″ x 34⅜″	6070-G2 23⅜″ x 17 3⁄16″	6070-G3 23⅜″ x 11⅜″		6070-GL 23⅜″ x 34⅜″	6070-GLL 23⅜″ x 34⅜″
6′-8″	6′-8″	6868-M	6868-V 10¾″ x 10¾″	6868-G 27⅜″ x 30⅜″			6868-G4 13 11⁄16″ x 15 5⁄16″	†6868-GL 27⅜″ x 30⅜″	†6868-GLL 27⅜″ x 30⅜″
	7′-0″	6870-M	6870-V 10¾″ x 10¾″	6870-G 27⅜″ x 34⅜″			6870-G4 13 11⁄16″ x 17 3⁄16″	†6870-GL 27⅜″ x 34⅜″	†6870-GLL 27⅜″ x 34⅜″
7′-4″	6′-8″	7468-M	7468-V 10¾″ x 10¾″	7468-G 31⅜″ x 30⅜″			7468-G4 15 11⁄16″ x 15 5⁄16″	†7468-GL 31⅜″ x 30⅜″	†7468-GLL 31⅜″ x 30⅜″
	7′-0″	7470-M	7470-V 10¾″ x 10¾″	7470-G 31⅜″ x 34⅜″			7470-G4 15 11⁄16″ x 17 3⁄16″	†7470-GL 31⅜″ x 34⅜″	†7470-GLL 31⅜″ x 34⅜″
8′-0″	7′-0″	8070-M	8070-V 10¾″ x 10¾″	8070-G 35⅜″ x 34⅜″			8070-G4 17 11⁄16″ x 17 3⁄16″	†8070-GL 35⅜″ x 34⅜″	†8070-GLL 35⅜″ x 34⅜″

*These sizes in louvered doors have only one louver panel in width instead of two as shown.
†These sizes in louvered doors have three louver panels in width instead of two as shown.
See specifications, page 17, for free air flow of louvered types.

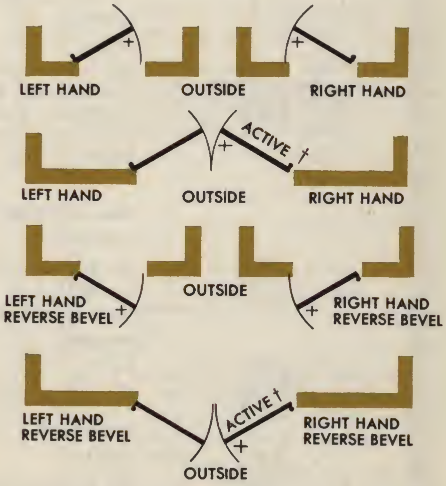


VL	VLL	TL	L	LL	DL	DLL
*2068-VL 10¾" x 10¾"	*2068-VLL 10¾" x 10¾"	*2068-TL	*2068-L	*2068-LL	*2068-DL	*2068-DLL
*2070-VL 10¾" x 10¾"	*2070-VLL 10¾" x 10¾"	*2070-TL	*2070-L	*2070-LL	*2070-DL	*2070-DLL
*2468-VL 10¾" x 10¾"	*2468-VLL 10¾" x 10¾"	*2468-TL	*2468-L	*2468-LL	*2468-DL	*2468-DLL
*2470-VL 10¾" x 10¾"	*2470-VLL 10¾" x 10¾"	*2470-TL	*2470-L	*2470-LL	*2470-DL	*2470-DLL
2668-VL 10¾" x 10¾"	2668-VLL 10¾" x 10¾"	2668-TL	2668-L	2668-LL	2668-DL	2668-DLL
2670-VL 10¾" x 10¾"	2670-VLL 10¾" x 10¾"	2670-TL	2670-L	2670-LL	2670-DL	2670-DLL
2868-VL 10¾" x 10¾"	2868-VLL 10¾" x 10¾"	2868-TL	2868-L	2868-LL	2868-DL	2868-DLL
2870-VL 10¾" x 10¾"	2870-VLL 10¾" x 10¾"	2870-TL	2870-L	2870-LL	2870-DL	2870-DLL
3068-VL 10¾" x 10¾"	3068-VLL 10¾" x 10¾"	3068-TL	3068-L	3068-LL	3068-DL	3068-DLL
3070-VL 10¾" x 10¾"	3070-VLL 10¾" x 10¾"	3070-TL	3070-L	3070-LL	3070-DL	3070-DLL
†3468-VL 10¾" x 10¾"	†3468-VLL 10¾" x 10¾"	†3468-TL	†3468-L	†3468-LL	†3468-DL	†3468-DLL
†3470-VL 10¾" x 10¾"	†3470-VLL 10¾" x 10¾"	†3470-TL	†3470-L	†3470-LL	†3470-DL	†3470-DLL
†3868-VL 10¾" x 10¾"	†3868-VLL 10¾" x 10¾"	†3868-TL	†3868-L	†3868-LL	†3868-DL	†3868-DLL
†3870-VL 10¾" x 10¾"	†3870-VLL 10¾" x 10¾"	†3870-TL	†3870-L	†3870-LL	†3870-DL	†3870-DLL
†4070-VL 10¾" x 10¾"	†4070-VLL 10¾" x 10¾"	†4070-TL	†4070-L	†4070-LL	†4070-DL	†4070-DLL
5068-VL 10¾" x 10¾"	5068-VLL 10¾" x 10¾"	5068-TL	5068-L	5068-LL	5068-DL	5068-DLL
5070-VL 10¾" x 10¾"	5070-VLL 10¾" x 10¾"	5070-TL	5070-L	5070-LL	5070-DL	5070-DLL
5468-VL 10¾" x 10¾"	5468-VLL 10¾" x 10¾"	5468-TL	5468-L	5468-LL	5468-DL	5468-DLL
5470-VL 10¾" x 10¾"	5470-VLL 10¾" x 10¾"	5470-TL	5470-L	5470-LL	5470-DL	5470-DLL
6068-VL 10¾" x 10¾"	6068-VLL 10¾" x 10¾"	6068-TL	6068-L	6068-LL	6068-DL	6068-DLL
6070-VL 10¾" x 10¾"	6070-VLL 10¾" x 10¾"	6070-TL	6070-L	6070-LL	6070-DL	6070-DLL
†6868-VL 10¾" x 10¾"	†6868-VLL 10¾" x 10¾"	†6868-TL	†6868-L	†6868-LL	†6868-DL	†6868-DLL
†6870-VL 10¾" x 10¾"	†6870-VLL 10¾" x 10¾"	†6870-TL	†6870-L	†6870-LL	†6870-DL	†6870-DLL
†7468-VL 10¾" x 10¾"	†7468-VLL 10¾" x 10¾"	†7468-TL	†7468-L	†7468-LL	†7468-DL	†7468-DLL
†7470-VL 10¾" x 10¾"	†7470-VLL 10¾" x 10¾"	†7470-TL	†7470-L	†7470-LL	†7470-DL	†7470-DLL
†8070-VL 10¾" x 10¾"	†8070-VLL 10¾" x 10¾"	†8070-TL	†8070-L	†8070-LL	†8070-DL	†8070-DLL

NOTE: Consult Fenestra representative for available SLENDER LIGHT doors.

how to determine hand and swing of doors

1. The hand of a door is determined from the outside.
2. The outside of an entrance door is the street side.
3. The outside of a room door is the corridor side.
4. The outside of a communicating door is the side from which hinges are not visible with door closed.
5. The outside of a closet door is the room side.
6. The key side will be the outside, unless otherwise specified.



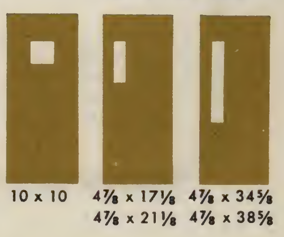
†ON PAIRS OF DOORS **+KEY SIDE**

Right hand leaf is always active except when panic bolts Pt. 2590 and 2591 are used at which time left hand reverse bevel leaf becomes active.

vision lights

Vision lite is 10" x 10" (also available—SLENDER LIGHT) and is constructed to permit easy installation of glass and provided with snap-in type glazing strips not requiring screws.

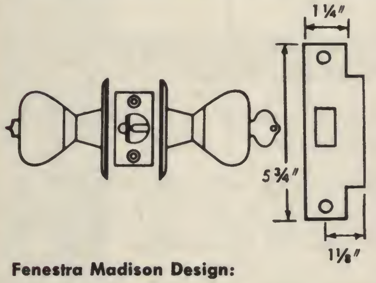
SLENDER LIGHT

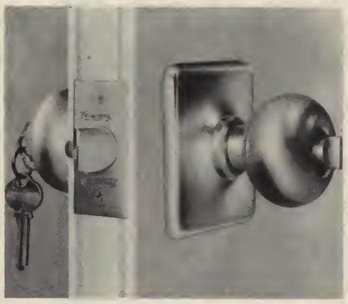


1¾″ full flush

cylinder locks

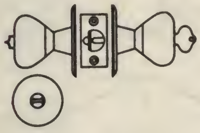
The 2400 series bored type locks are a modern series with all conventional functions that can be installed in one standard door-lock machining. US Govt. series 161. Finished US 10 or US 28. Additional functions and finishes available on special order. Fenestra master keying, if desired.





Fenestra Madison Design:

Smooth surfaces, square heavy-wrought escutcheons, with softly rounded beveled edges and graceful, cold-forged knobs. An attractive design, ideal where complete simplicity is desired.



office

2470

By both knobs. Outside locked by pushing inside button when door is closed (preventing accidental lock-out). Key or inside knob, releases outside knob and inside button, except when button is turned while depressed. Guarded latch bolt.

US Govt. No. 161E.

two cylinder lock

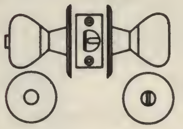
2470-C*

By both knobs except when outside knob locked by inside key, then outside knob by key. Guarded latch bolt. US Govt. No. 161C.

passage

2471

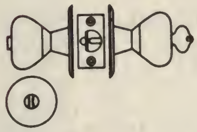
By both knobs. US Govt. No. 161N.



bathroom

2471-L*

By both knobs. Push button in inside knob locks outside knob. Turning inside knob or closing door releases button. Emergency outside button. US Govt. No. 161L.

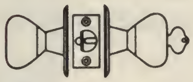


all purpose

2472

By both knobs. Outside locked by pushing inside button. Key or inside knob releases outside knob and inside button, except when coin slot in button is turned while depressed. Closing door does not release button. Guarded latch bolt.

US Govt. No. 161



classroom

2473

From outside by knob except when locked from outside by key. From inside by knob at all times. Guarded latch bolt. US Govt. No. 161R.

knob pulls

2475 *

Double pull. Knob both sides. No mechanical operation.

2475-LK

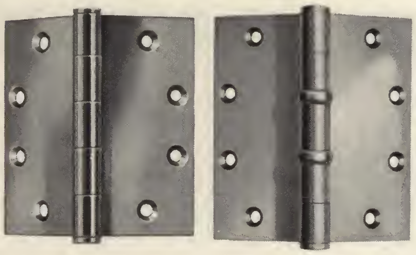
Dummy trim for inactive leaf of double door.

*available on special order

hinges

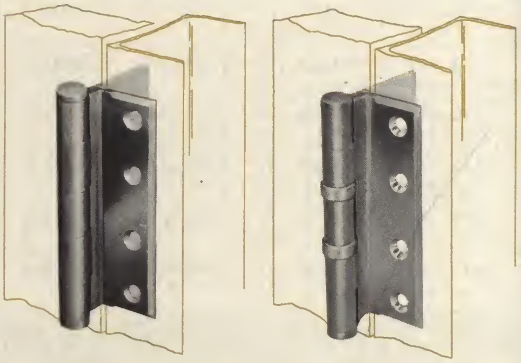
full mortise type

For Fenestra doors hung in rolled-metal Fenestra frames. Both frame and door leaves mortise applied. 5″ x 4½″—regular weight—.146 gauge. Loose pin.



half mortise type

For Fenestra doors hung in structural frames. Door leaf mortise applied. Frame leaf surface. applied. 5″—regular weight—.146 gauge. Loose pin.



	part no.	ball bearing	material	finish	US Govt. No.
full mortise	1643	no	steel	prime-painted	T2127
	1643A	yes	steel	prime-painted	T2107
	1643B	yes	solid bronze	US 10, 26D†	T2106
half mortise	S1643	no	steel	prime-painted	T2145-Mod.
	S1643A	yes	steel	prime-painted	T2145
	S1643B	yes	solid bronze	US 10, 26D†	T2142

†US 10—dull bronze; US 26D—dull chromium

Above Fenestra hinges listed are made to US Govt. standard template.

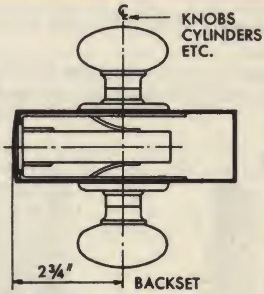
Plain-bearing hinges 1643 and S1643 should generally be applied on doors having low-frequency usage. Ball-bearing hinges should be applied generally on doors with higher frequency usage, as well as doors with closers 1462, 1463 or 1464.

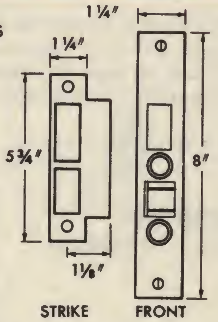
When hinges are required with non-removable pins, add NRP to part number (i.e. 1643A-NRP).

mortise locks

Available for Fenestra 1¾" full flush doors. All functions are made in one standard size lock case to permit mass production, standard mortising, machining and interchangeability of function. Addition functions available on special order. Fenestra master keying, if desired

Wrought Knobs and Escutcheons: bronze or aluminum. *Knobs:* 2¼" diameter. *Escutcheons:* 7⅜" x 2¼".

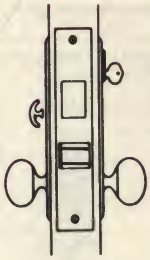




specifications

Bolts:	bronze, ½" throw
Front:	bronze
Strike:	bronze
Cylinders:	bronze
Springs:	Two compression-type. Each on latch bolt, firm on knob.
Turn Knobs:	bronze or aluminum
Finishes:	US 10, US 26D, US 28†. Additional finishes available on special order.

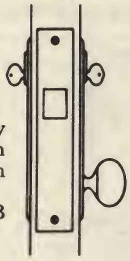
†US 10—dull bronze; US 26D—dull chromium; US 28—anodized aluminum



all-purpose

1979

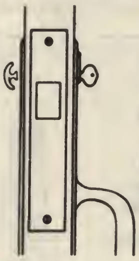
Dead bolt from outside by key, from inside by turn knob. Latch bolt from both sides by knobs.
US Govt. No. 86B



dead

1982-A

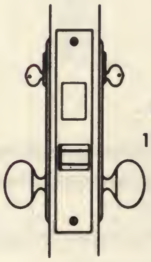
From outside and inside by key. Fixed knob as pull on hinge side.
US Govt. No. 86T



classroom dead

1982-S* (with pull plate 2250 and push plate 2251TK)

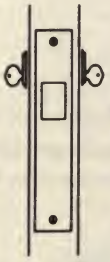
Outside by key. Inside by turn knob to retract, but not project, dead bolt.
US Govt. No. 86P-Mod.



storeroom lock

1979-C*

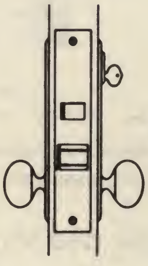
Dead bolt from both sides by key. Latch bolt from both sides by knobs.
US Govt. No. 86C



dead

1982-C

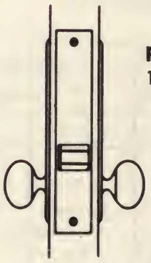
From both sides by key. Used with push-bars and push-and-pull plates.
US Govt. No. 86T



classroom

1993

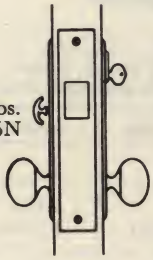
Outside by knob except when locked from outside by key. Inside by knob at all times. Guarded latch bolt.
US Govt. No. 86J



passage latch

1980

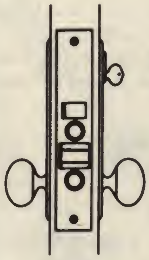
From both sides by knobs.
US Govt. No. 86N



dead

1982-D

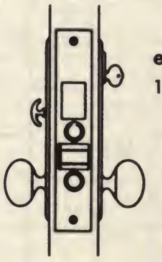
From outside by key. From inside by turn knob. Knob serves as pull.
US Govt. No. 86P



office

1983

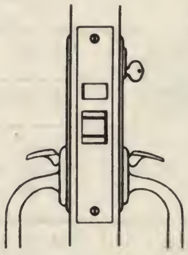
Outside by key, both sides by knobs except when outside knob is locked by stop in front. Guarded latch bolt.
US Govt. No. 86E



entrance

1984

Both bolts from outside by key. Dead bolt from inside by turn knob. Latch bolt from both sides by knobs, except when outside knob is locked by stop in front.
US Govt. No. 86A



entrance door handle sets 1992

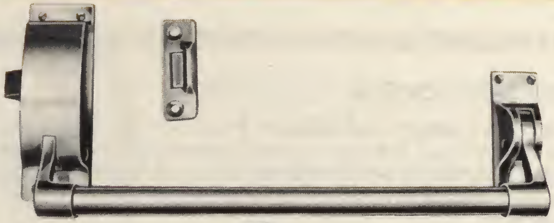
Guarded latch. No dead bolt. One cylinder. Latch bolt by thumbpiece from either side, unless outside thumbpiece locked by cylinder. US Govt. No. 123B-Mod.

1992-B*

Thumbpiece both sides retracts latch bolt unless outside thumbpiece is locked by inside cylinder. Outside cylinder retracts latch bolt only. Guarded latch bolt.
US Govt. No. 123Bx26-Mod.

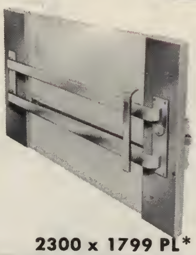
*available on special order

panic bolts - rim type - 2300 and 2301



Complete sets for single doors or for each leaf of a pair of doors with removable mullion 2304.
Inside: Latch bolt by push on crossbar except when bar is secured in depressed position leaving door free. Dogging device in both brackets.
Outside: See below.

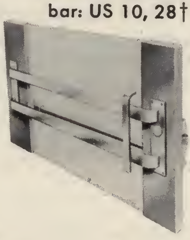
with outside cylinder function



part no.	2300	2300 x 1799 PL*	2300-T*	2300-K*
function	key retracts latch bolt	key retracts latch bolt	key locks thumbpiece	key locks knob
US Govt. No.	810-H x 410	810-H x 476	810 x 410 x T P (MOD.)	810-K
finishes	US 10, 26D†	bolt: US 10, 26D† bar: US 10, 28†	US 10, 26D†	US 10, 26D†

part no.	2301	2301 x 1799 PL*	2301 x 1491*	2301-K*
function	pull when bar is dogged	pull when bar is dogged	exit only	pull when bar is dogged
US Govt. No.	810 x 455	810 x 476	810 x 465 R	810-K-MOD.
finishes	US 10, 26D†	bolt: US 10, 26D† bar: US 10, 28†	US 10, 26D†	US 10, 26D†

with no outside cylinder function

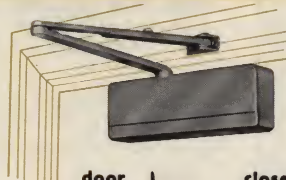


*Available on special order. †US 10—dull bronze; US 26D—dull chromium; US 28—anodized aluminum.

rectangular type closer

Engineered for compactness and beauty the rectangular type closer offers complete door control with absolutely no sacrifice in efficiency over standard surface applied closers of equal closer size.

1. 1⅝" projection from face of door (less than standard knob projections.)
2. Adjustment of valves by key only.
3. Minimum spring life of 1,000,000 cycles.
4. Complete line of functions available. Finishes—Aluminum color (EN) and Bronze color (EP).



closer

closer bracket

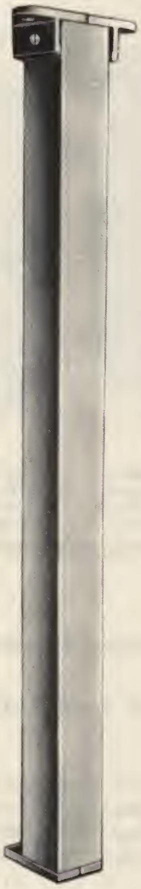
	door opening width	closer (regular, hold-open and fusible link)		closer on corner brkt. (pts 2550 and 2570)		parallel arm closer	
		interior	exterior	interior	exterior	interior	exterior
1¾"	2'-0"	2552	2553	2552 (x 2550)	2553 (x 2550)	2553P	2574P
	2'-4"						
	2'-6"				2574 (x 2570)		2575P
	2'-8"		2574	2553 (x 2550)		2554P	
	3'-0"	2553			2575 (x 2570)		2576P
	3'-4"		2575	2554 (x 2550)		2575P	
	3'-8"	2554	2576		2576 (x 2570)		
	4'-0"			2575 (x 2570)		2576P	

NOTE: Closers are handed as viewed from the push side, either right or left, except when attached to corner bracket in which case the opposite hand applies.

STANDARD FUNCTIONS: 1. Regular arm without holder; 2. 90° holder arm; 3. 90° fusible link holder arm.

*Available on special order only.

removable mullion - 2304



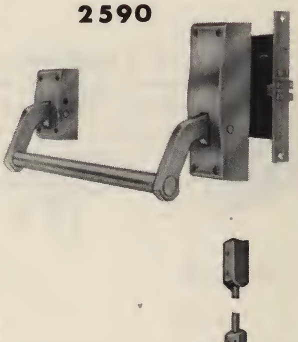
Used with rim type panic bolts—2300 and 2301. Double door openings become two single doors when using mullion 2304 and two rim bolts. Each leaf operates independently. Mullion assures orderly passage necessary for safety by directing traffic to right and left. Mullion also provides guard to prevent picking or forcing of latch bolts, giving maximum security. Structural steel section is 2" square with ⅛" thick wall; prime-painted. Cannot be deflected or sprung, gives weather protection; astragal not required. Mullion is packed in carton, complete with fittings and two exit bolt strikes.

panic bolts - mortise type - 2590

INSTANT RELEASE . . . even under extreme conditions . . . is afforded by Fenestra Standard Exit Devices because of a simplified mechanism of only two moving parts: a long actuating arm works directly on the latch bolt and gives a great mechanical advantage. Extra heavy cross bars are standard in all devices. A ¾" bolt projection provides positive latching.

All types shown below are complete sets for single doors or for each active leaf of a pair of doors (for inactive leaf use top-and-bottom locking bolt 2591).
Finishes: US 10 or 26D.
Inside: Latch bolt by push or cross bar except when bar is secured in depressed position leaving door free.
Outside: See below.

2590



top-and-bottom locking - 2591

Complete set for single doors or inactive leaf of pair of doors.

Finishes: US 10 and 26D.

Inside: By push on crossbar, after door is closed. Dogging device in both brackets to hold crossbar depressed with bolts withdrawn.

Outside: Blank cover plate, no operation from outside.

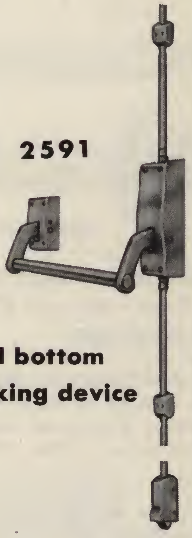
US Govt. No. 821.

2590-NT	2590-T	2590-K*
key retracts latch bolt	key locks thumbpiece	key locks knob
US Govt. No. 820-H	US Govt. No. 820-H x 410	US Govt. No. 820-K
Lock 974	Lock 973	Lock 973

On pairs of doors—left-hand reverse bevel is active.

***Available on special order.**

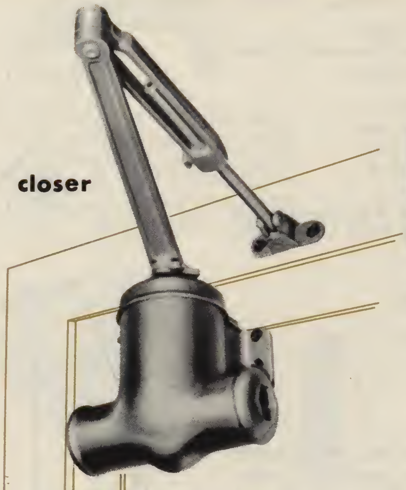
2591



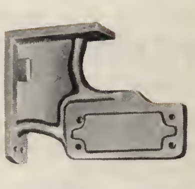
top and bottom locking device

conventional type closers

Closers: Approved by Underwriters' Laboratories, Inc. Standard application allows door to open 140° (Specify if for 180°) Closer not handed. See table at right.
Soffit bracket: Used when door swings to outside of building. Allow door closer to be mounted to frame, thus preventing exposure to weather, US Govt. type S.
Corner bracket: For use in place of soffit bracket on out-swinging doors, US Govt. type R.
NOTE: With overhead door holder FR-1495 closer must be specified with inverted arm.
Hold-open arm: Holds door open in any position between 65° and 135°. Easily adjusted.
Fusible-link hold-open arm: Holds door open in any position from 65° to 135°. Fusible link melts when exposed to 160° F, thus causing door to close automatically. Can be used on "hinge side" of door or with bracket on other side. For either hand, by turning upside down.
Parallel arm: Allows closer to be fastened to door, eliminating soffit bracket.
Finishes: Bronze-sprayed lacquer standard; for aluminum sprayed lacquer, add suffix EN to part number.



closer



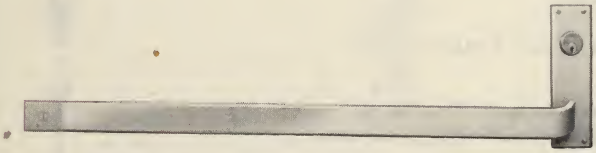
corner bracket

	closer		closer accessory part nos.				
door opening width	part no.	US govt. type	soffit bracket	corner bracket	hold-open arm	fusible-link hold-open-arm	parallel arm
2'-0" to 3'-0"	1462	3001-III	1466	1366	1462-H	1462-L	1462-P
3'-4" to 3'-8"	1463	3001-IV	1467	1367	1463-H	1463-L	1463-P
4'-0" to 5'-0"	1464	3001-V	1468	1368	1464-H	1464-L	1464-P

1¾" full flush hardware (cont'd)

push & pull bars - 2399

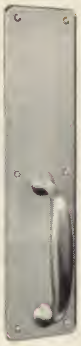
Complete set of solid, extruded rectangular bars for one door leaf, consists of one single bar for each side of door. Can also be furnished with single bar for push side of door and pull plates as 2250 and 2250EX on pull side of door. When lock is required specify 1982C. *Finishes:* US 10 (US Govt. No. 472 Mod.); US 28 (US Govt. No. 472-A Mod.).



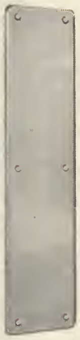
push & pull plates

wrought type:

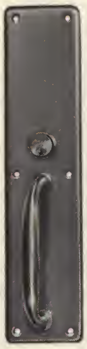
Solid cast grip; .050 wrought metal plate. *Size:* 15 x 3½". *Finishes:* US 10, 28.



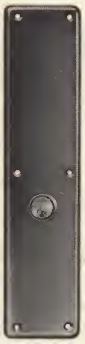
1490
U. S. Govt.
No. 455
(Mod.)



1491
U. S. Govt.
No. 465R
(Mod.)



2250
U. S. Govt.
No. 455
(C.C. Mod.)



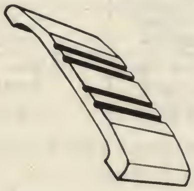
2251
U. S. Govt.
No. 465R
(C.C. Mod.)

thresholds

For doors hung on hinges. Cut to size and notched to fit frame. Stocked in extruded aluminum. Extruded bronze available on special order.

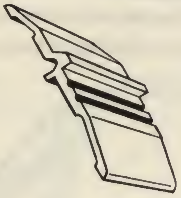
2325

US Govt. No. 833 x no stop.
fastening: No. 14 x 1¾" flat-head wood screws and lead shields.



2333*

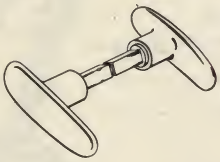
US Govt. No. 833.
Has integral stop providing weather protection.
fastening: ¼"—20 machine screw and Ackerman Johnson anchors.



tee handle

1989-B

Used in lieu of knobs. Furnished when specified on locks 1979, 1980, 1983, 1984. *Finish:* US 10.

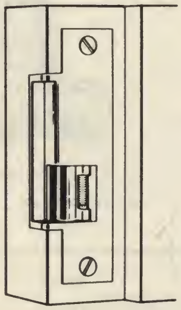


electric strike

1909* for 1983 locks

2229* for 2270

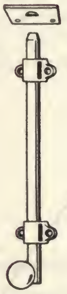
Adapted to fit standard government strike. Used in offices, apartment vestibules and as a safety release in minimum detention buildings.
Finish: Japan black, US 1B.



head and foot bolt

1893

Surface applied. Holds inactive leaf of a pair of doors in a secured position. US Govt. Type F1061 with ⅝" rod. Plated steel. *Finishes:* US 10, 26, 26D, 2C.



kick plates

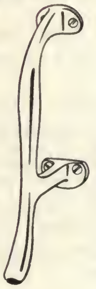
2343

To give scuff protection at bottom rail. Square corners, edges not beveled. Oval head screws furnished. *Finishes:* US 10, US 28 stainless steel and plastic.

hospital pull arm

2258

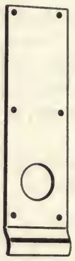
US Govt. No. 458-A.
Combination hand and arm pull. Person holding tray can open door with arm.
Finishes: US 10, 26D.



push & pull plate

2245*

US Govt. No. 457.
Push plate with finger pull. Cut for cylinder or thumb turn. Used on doors with cylinder dead lock. Finger pull enables door to be closed tightly against rubber mutes when locking. *Finishes:* 10, 26D.



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*Available on special order.

modern extruded type

⅜" x 1¼" solid extruded bar grip. 3/16" thick solid extruded plate—15" x 3½". *Finishes:* US 10, 28.

1490-EX* U. S. Govt. No. 450 (Mod.)

1491-EX* U. S. Govt. No. 460 (Mod.)

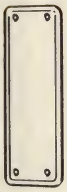
2250-EX* U. S. Govt. No. 450 (C.C. Mod.)

2251-EX* U. S. Govt. No. 460 (C.C. Mod.)

cover plate

1985

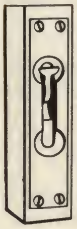
US Govt. No. 315M Mod.
Used to cover standard lock machining in door when no hardware is used. *Size:* 7⅜" x 2¼". Pull Plate Pt. 1986 also available. *Finishes:* US 10, 26D, 28.



mortise flush bolts

2109

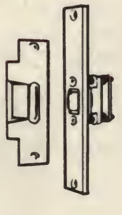
US Govt. No. 1045.
Lever extends or retracts bolt head. For use on pairs of doors to lock inactive door at top or bottom, using two bolts. Bolts mortised in edge of door. *Finishes:* US 10, 26D.



mortise roller latch

1910*

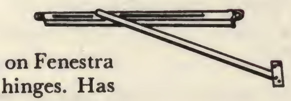
US Govt. No. 193.
For doors, such as hospitals and institutions, where quiet is essential and only positive latching is required. Operated by push and pull on door. *Finishes:* US 10, 26D.



door closer

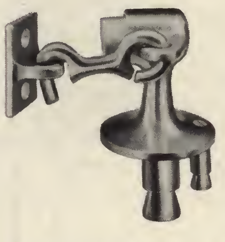
FR 1495*

US Govt. No. 1161.
For single-acting doors hung on Fenestra full-mortise or half-mortise hinges. Has optional hold open at 90° position set by turn of control handle. Encased shock absorber cushions outward swing. Surface applied with six bolts. Bronze. *Finishes:* 10, 26D. Specify when ordering. Part No., finish, door width, hand (right or left).



doorstops

floor type



Stop with holder

1493

US Govt. No. 1329-E

Stop only

1494*

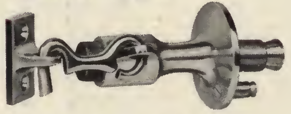
US Govt. No. 1328-E

Stop only

1496

US Govt. No. 1330-A

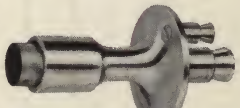
base type



Stop with holder

1475*

US Govt. No. 1321-E



Stop only

1474*

US Govt. No. 1320-E

All doorstops, except 1496, furnished with lead screw anchors. *Finishes:* US 10, 26D. Doorstop 1496 furnished with wood screws and lead shields. *Finishes:* US 10, 28.

cylinders

mortise

1200

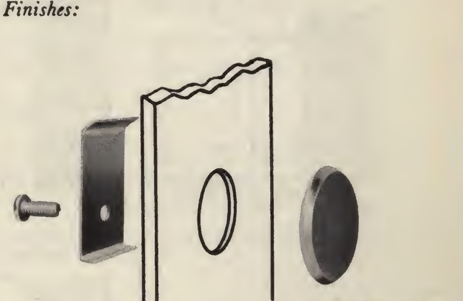
Standard 1⅛" dia. Furnished with compression ring. Available lengths: 1⅛" for 2-cylinder locks, 1¼" for 2-cylinder locks with heavy trim, 1⅜" for 1-cylinder locks. *Finishes:* US 10, 26D, 28.

rim

2307

Furnished with compression ring. Supplied one size only. Used with rim exit bolts 2300. *Finishes:* US 10, 26D, 28.

mortise x T/K
1205*
Standard 1⅛" dia. Furnished with compression ring. *Stock length:* 1¼". Can be screwed into cylinder hole of lock to give thumb-turn operation. *Finishes:* US 10, 26D, 28.



cylinder plug
2308

Closes cylinder hole in plates and escutcheon when cylinder is not required. *Finishes:* US 10, 26D, 28.

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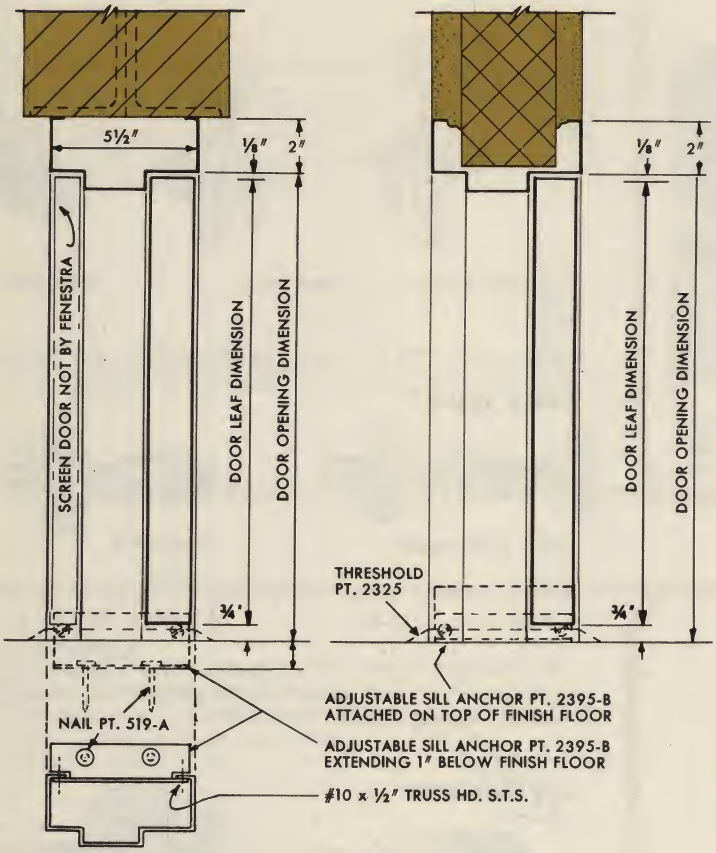
* Available on special order.

1¾″ full flush

installation details

with Fenestra rolled steel frames 8″ wall or partition

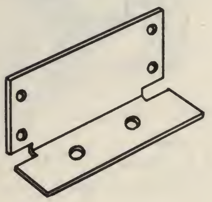
in 4″ (tile) partition



ADJUSTABLE SILL ANCHOR PT. 2395-B ATTACHED ON TOP OF FINISH FLOOR

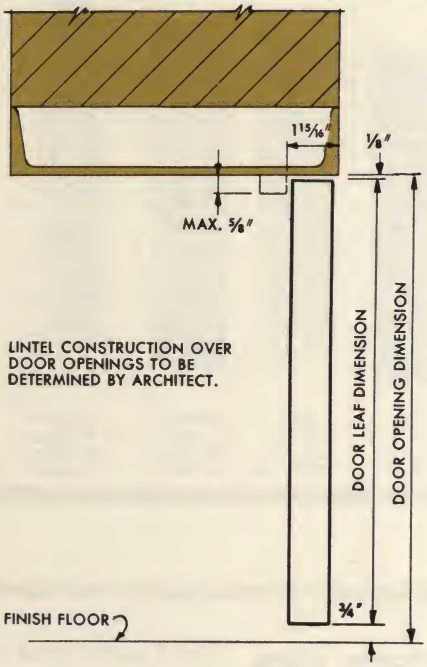
ADJUSTABLE SILL ANCHOR PT. 2395-B EXTENDING 1″ BELOW FINISH FLOOR

#10 x ½″ TRUSS HD. S.T.S.

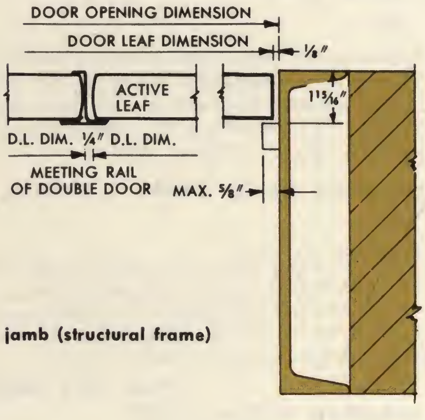


SILL ANCHOR PART 2395-B

with structural frame in 12″ masonry wall



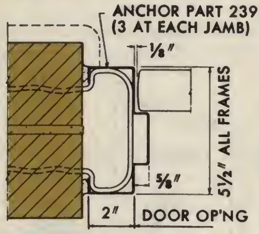
LINTEL CONSTRUCTION OVER DOOR OPENINGS TO BE DETERMINED BY ARCHITECT.



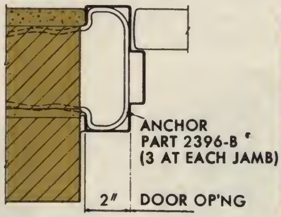
jamb (structural frame)

Jamb details

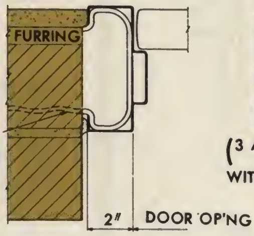
SOLID BRICK OR CONCRETE BLOCK



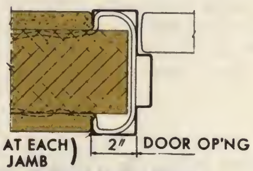
SOLID MASONRY WITH PLASTER



SOLID MASONRY WITH FURRING

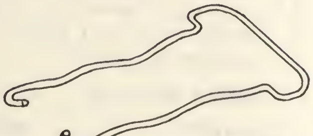


4″ GYPSUM OR HOLLOW TILE PARTITION



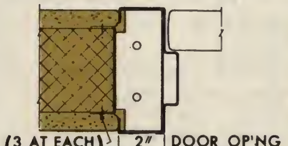
(3 AT EACH JAMB) WITH ANCHOR PART 2396-B

anchor part 2396-b



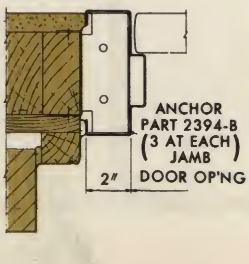
USE 3 AT EACH JAMB

4″ GYPSUM OR HOLLOW TILE PARTITION

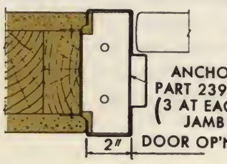


(3 AT EACH JAMB) WITH ANCHOR PART 2396-B

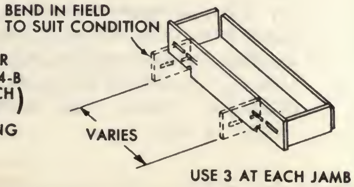
BRICK VENEER



WOOD STUD PARTITION



anchor part 2394-b



USE 3 AT EACH JAMB

specifications

GENERAL: All interior and exterior swinging doors shall be Fenestra 1¾" full flush, multi-grid construction as manufactured by Fenestra Incorporated.

CONSTRUCTION: Face panels shall be formed of No. 16 U.S. gauge cold-rolled, leveled sheet steel. Perimeter stiles will be formed of No. 18-gauge C R. steel. Faces of door will show smooth, seamless, unbroken surfaces. Perimeter stiles and inner frame members will all be double welded to each other at junctions. There will be no fewer than eight inner horizontal frame members per door (excepting half glass models). All frame members to be securely welded to face panels with vertical distance between welds averaging 6.5 inches and never exceeding 11.5 inches; and horizontal distances between welds averaging 6 inches and never exceeding 7 inches. The total number of welds holding the skins to the frame to vary between 140 and 280, depending upon width of door. Doors will be mortised and machined and reinforced for locks and hinges with no lighter than No. 14-gauge reinforcing braces securely welded to inside of vertical perimeter stiles and extending not less than 5 full inches into the interior of the door.

HARDWARE: For swing doors: All door hardware shall be furnished by door manufacturer.

Hinges shall be 5" x 4½" full mortise, template type. They shall be supplied 3 per leaf for doors up to and including 7'-0" high. Ball bearing hinges shall be furnished for doors having door closers or subject to frequent use. Where frames are channel iron or other structural type, half-mortise hinges shall be furnished. Machine screws shall be used to attach hinges to doors and frames.

Heavy duty cylindrical type lock shall have 2¾" backset with Government front, size 1⅛" x 2¼" and Government strike plate. Finishes shall be bronze US No. 10 and anodized aluminum US No. 28. US Government series 161 locks.

Mortise locks shall be escutcheon type with 1⅛" diameter cylinder and of standard Fenestra design and special heavy construction for steel doors. They shall have a 2¾" backset and heavy bronze fronts 8" x 1¼", Government standard strikes, bronze Government type 201 knobs (T-lever handle optional) and wrought-bronze escutcheons. Finish shall be bronze US No. 10 or anodized aluminum US No. 28. Cylinder locks shall have a protected front. Top and bottom bolts shall be supplied for inactive leaf of all double doors. Door checks, where required, shall be Government standard type 3001 in sizes as required.

FRAMES: Frames shall be No. 16-gauge rolled steel, formed with integral stops and rebates. Frames shall be 5½" wide, and 2" on inside and outside face. Jambs shall be constructed to set on finished floor. Sill anchors shall be furnished to set on finished floor or 1" below.

Frames shall be shipped knocked down and shall be machined for attachment of hardware, including mortising, reinforcing, drilling and tapping for hinges and strike plate. Jamb anchors shall be included.

LOUVERS: (if required) shall be integrally pierced in both face panels of door. One louver shall consist, in a 2'-0" door of 1 row of slots; in a 2'-6", 2'-8" or 3'-0" door of 2 rows of slots; and in a 3'-4", 3'-8" or 4'-0" door of 3 rows of slots. One row of slots consists of a vertical row of 11 horizontal slots each 8" long and providing approximately 3 square inches of free air flow per slot. Furthermore, a door may have a single or double louver at the bottom, and/or a single louver at the top. All pierced louvers are provided with internal insect screens.

Approximate free air flow (square inches)

Door Type	*One Louver*	*Two Louvers*	*Three Louvers*
2'-0"	33.5	67	100.5
2'-4"	33.5	67	100.5
2'-6"	67	134	201
2'-8"	67	134	201
3'-0"	67	134	201
3'-4"	100.5	201	301.5
3'-8"	100.5	201	301.5
4'-0"	100.5	201	301.5

Fen-Air louvered doors will be machined for louvers in (specify —top, bottom, or both) of door. Louvers will be inverted V-shape fin-type, 1" thick overall with pressed metal frames lapping the full panel openings of door.

Approximate free air flow (square inches)

Door Type	*One Louver*	*Two Louvers*
2'-8"	166	332
3'-0"	220	440

HALF PANEL AND VISION LITE DOORS: (vision lite to have maximum of 100 square inches of light) are to be constructed to permit easy installation of glass and are to be provided with snap-in type glazing strips not requiring screws. Plastic weathering to be provided to surround glass edge. (Glass and glazing by others.)

SHOP FINISH: Doors shall be protected inside and outside against corrosion, factory prime-painted and sound-deadened. Frames shall be Bonderized and receive one shop coat of baked-on metallic primer.

ERECTION: Doors and frames shall be erected plumb and true, with all hardware left in proper working order. Erection shall be done by a competent door erector and in accordance with door manufacturer's instructions.

GLASS AND GLAZING: (To be inserted in the general "Glazing" specifications.) Glass shall be ⅛" thick, and held in place by continuous glazing moldings furnished by the door contractor.

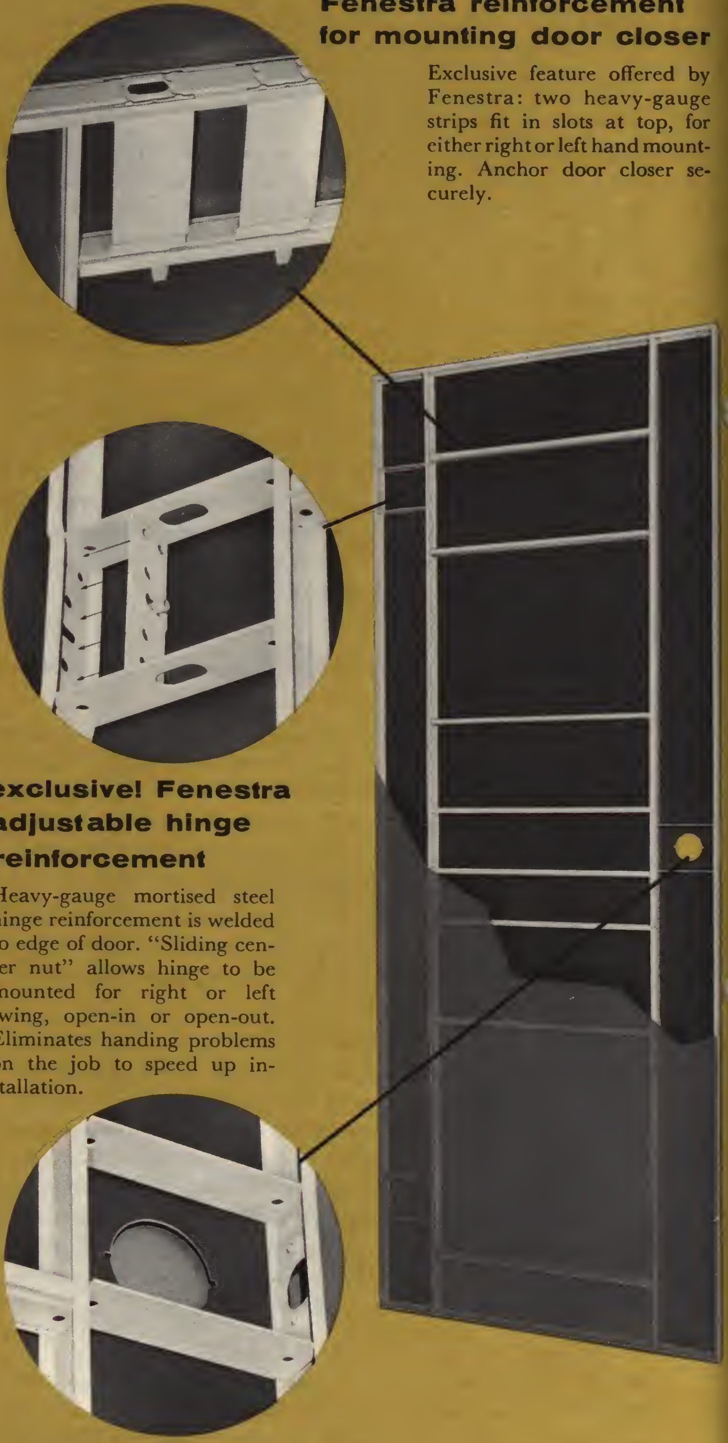
1⅜″ full flush

The Fenestra 1⅜″ hollow metal door is constructed of full-flush seamless face panels of 20-gauge leveled steel and beneath is a reinforcing grid of 18-gauge roll-formed steel sections. An exclusive Fenestra manufacturing process invisibly welds both faces to this multi-rib reinforcement at more than 100 points on each door. This Fenestra door is stronger and more rigid—without wasteful weight—than any other door of this type on the market.

type F

type G

**Fen-Air
(air conditioned)**



Fenestra reinforcement for mounting door closer

Exclusive feature offered by Fenestra: two heavy-gauge strips fit in slots at top, for either right or left hand mounting. Anchor door closer securely.

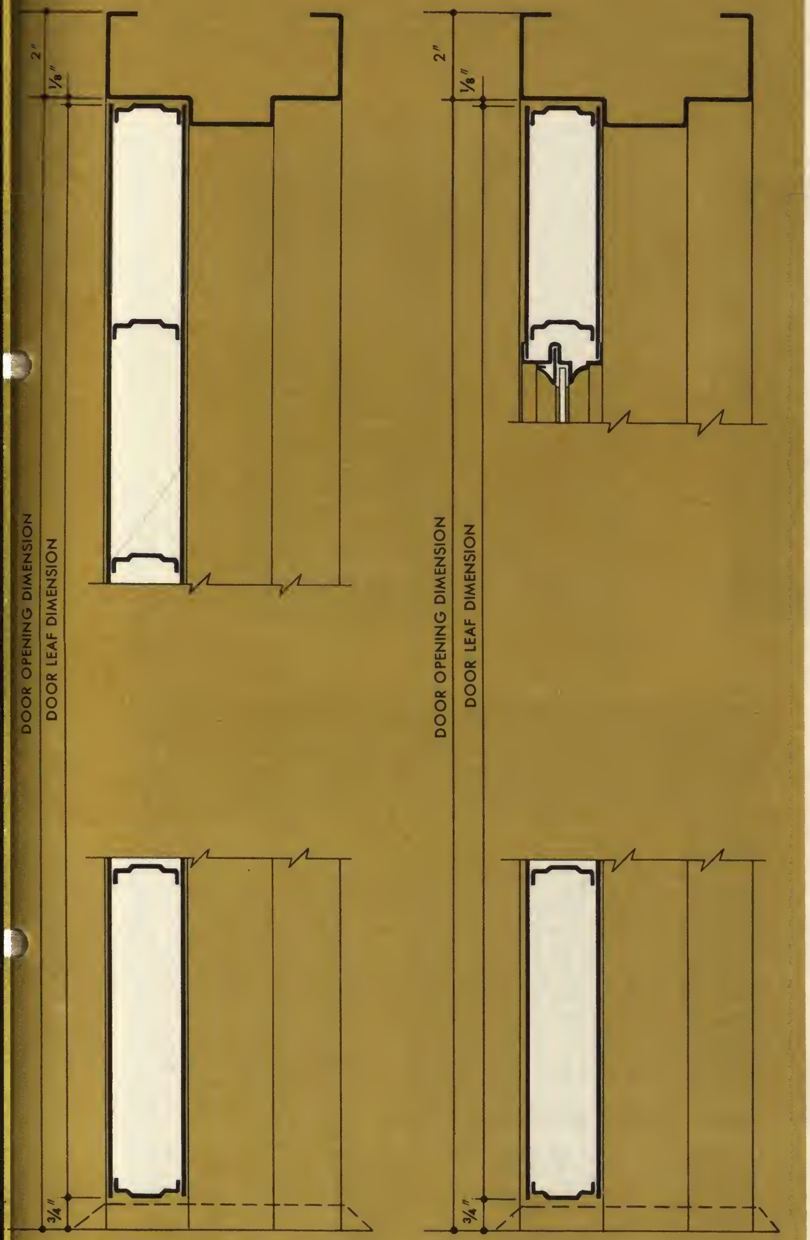
exclusive! Fenestra adjustable hinge reinforcement

Heavy-gauge mortised steel hinge reinforcement is welded to edge of door. "Sliding center nut" allows hinge to be mounted for right or left swing, open-in or open-out. Eliminates handing problems on the job to speed up installation.

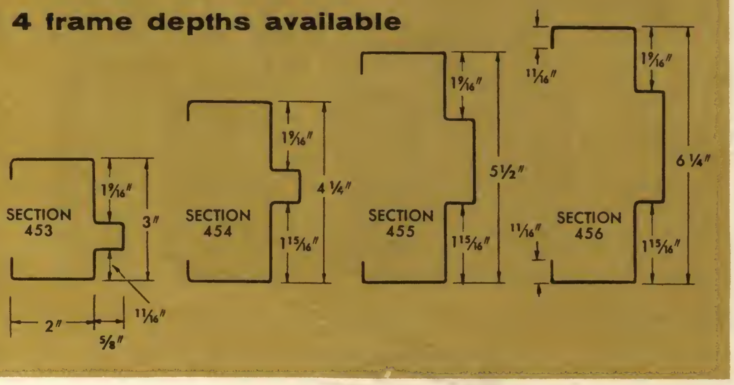
Fenestra lock reinforcement

Heavy-gauge steel reinforcement welded into door is drilled and tapped for installation of Fenestra hardware. No extra reinforcing material to buy or apply. Supplies extra strength for this important section of the door.

construction

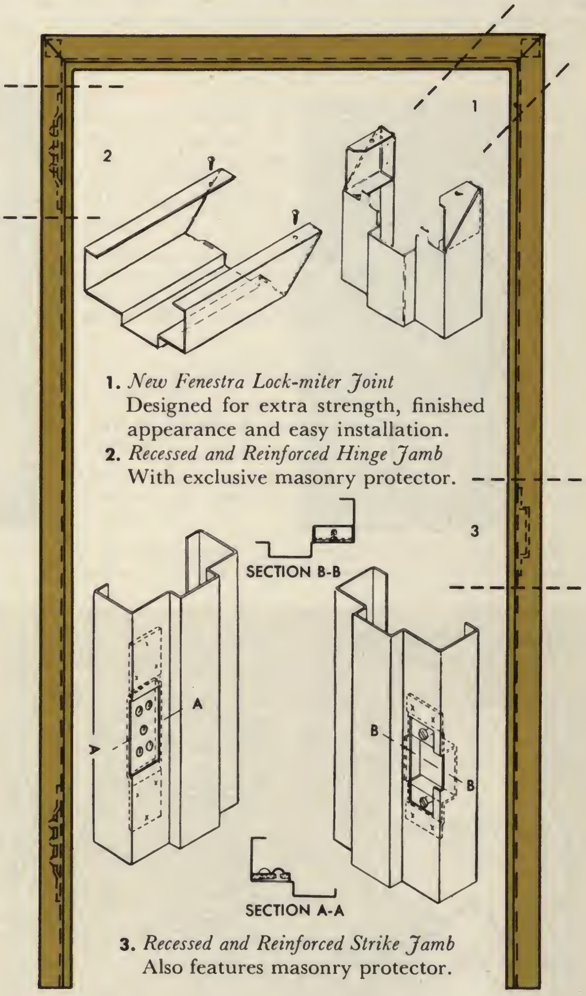


4 frame depths available



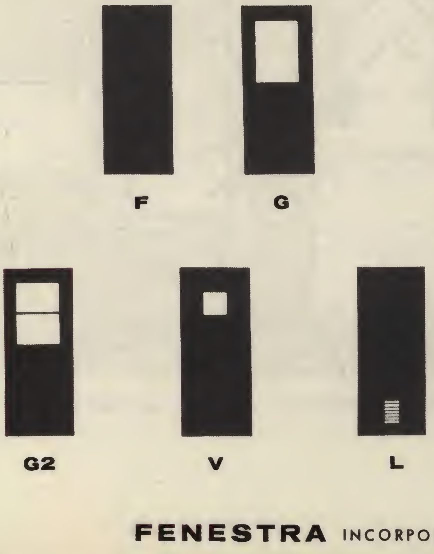
frames

Pre-fitted to Fenestra doors at the factory, these strong 18-gauge steel frames are quickly assembled and installed in all types of wall construction. The frames are reinforced and machined for hardware installation.



1. *New Fenestra Lock-miter Joint* Designed for extra strength, finished appearance and easy installation.
2. *Recessed and Reinforced Hinge Jamb* With exclusive masonry protector.
3. *Recessed and Reinforced Strike Jamb* Also features masonry protector.

leaf types available

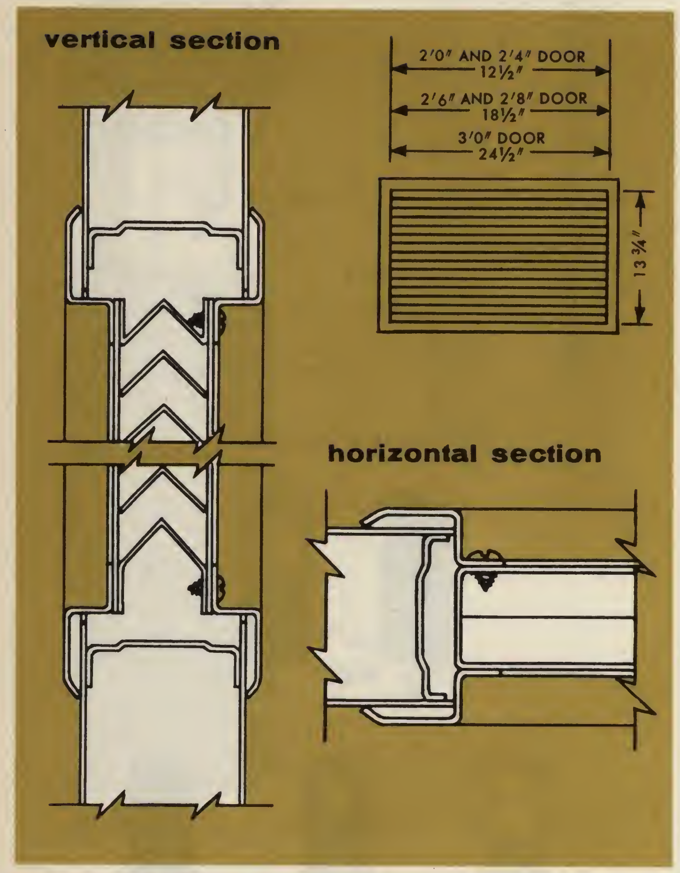


1⅜" full flush

Fen-Air (air conditioned)

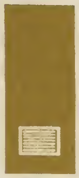
Fenestra Air-conditioning Doors are available in a variety of sizes and designs.

This new type louver allows complete flexibility to choose the right amount of free air circulation needed for the most efficient cooling and heating design.

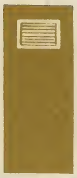


door type	door size	free air space		
		upper panel louver	lower panel louver	upper & lower panel louvers
2068 **2468** **2070** **2470**	2'-0" x 6'-8" 2'-4" x 6'-8" 2'-0" x 7'-0" 2'-4" x 7'-0"	105 sq. in.	105 sq. in.	210 sq. in.
2668 **2868** **2670** **2870**	2'-6" x 6'-8" 2'-8" x 6'-8" 2'-6" x 7'-0" 2'-8" x 7'-0"	150 sq. in.	150 sq. in.	300 sq. in.
3068 **3070**	3'-0" x 6'-8" 3'-0" x 7'-0"	200 sq. in.	200 sq. in.	400 sq. in.

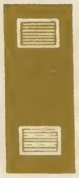
leaf types available



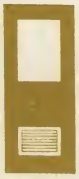
FL



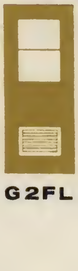
TFL



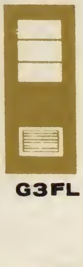
DFL



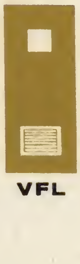
GFL



G2FL



G3FL

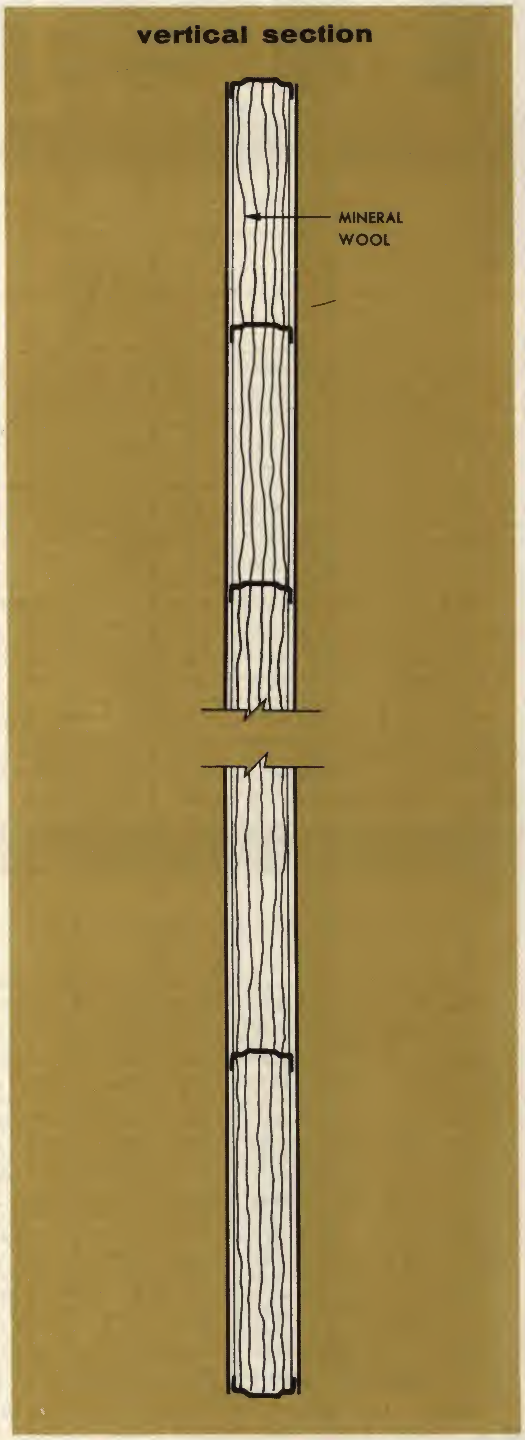


VFL

NOTE: For doors requiring pierced louvers—see specifications, page 25, for free air space.

Underwriters' Label

These sturdy doors pass 1½-hour and ¾-hour tests and carry Underwriters' B and C Label.



specifications

GENERAL: All fire doors shall be 1⅜″, full flush, multi-rib constructed fire doors as manufactured by Fenestra Incorporated. Doors shall bear Underwriters' Laboratories B or C labels in accordance with the opening protection required.

CONSTRUCTION: Face sheets shall be formed of No. 20 USS gauge, cold-rolled, leveled steel. Perimeter and interior reinforcing channel ribs shall be formed of No. 18 USS gauge, cold-rolled steel. Face sheets and perimeter reinforcing channel ribs shall be designed and constructed so that all seams or joints shall occur on the edges of the door to provide a full flush uninterrupted surface on both faces.

Perimeter and interior reinforcing channel ribs shall be securely assembled to provide a rigid interior structural frame for the face sheets to prevent racking or warping of the door. Face sheets shall be welded to the interior structural frame, with horizontal spacing of welds not to exceed 7″. All horizontal members of the interior structural frame shall be provided with slots to allow adequate ventilation of the interior of the door.

Doors shall be machine mortised and reinforced for locks and hinges with heavy-gauge reinforcing braces securely welded to the inside of the vertical perimeter reinforcing channel ribs. Provisions for door closer reinforcement shall be made in all doors. Closers shall be furnished with reinforcement plates to be inserted in doors during installation.

All interior spaces of the door shall be insulated with a 1⅜″ layer of 5 pound per cubic foot density felted mineral wool.

The inactive leaf of each pair of double doors shall be equipped with a "T" shaped astragal of ⅛″ thick steel.

Door dimensions shall allow for clearances of ⅛″ at head and jambs. ¼″ at meeting edges of double doors and ¾″ at sill, to allow for ½″ threshold with a residual clearance not exceeding ¼″.

When required, provisions shall be made for the installation of half-panels or vision light glass areas in accordance with the requirements of the label classification.

FRAMES: Frames shall be of 16 USS gauge steel, roll-formed with integral stops and rebates.

Frames shall be shipped knocked down and shall be machined for attachment of hardware, including mortising, reinforcement, drilling and tapping for hinges. Frames shall be equipped with adjustable anchors welded to jamb members.

SHOP FINISH: Doors shall be protected inside and outside with one shop coat of primer paint. Frames shall be Bonderized and painted with one coat of primer.

HARDWARE: Hardware shall be furnished by Fenestra Incorporated and shall be packed and shipped separately for attachment at the time of door installation. Hinges shall be 3½″ x 3½″ full mortise, template type, made of .122″ thick steel, prime painted. Hinges shall be furnished 3 per door with machine screws for attachment to door and frame.

Locksets shall be single point, key-in-knob, cylinder type providing for all conventional functions in one standardized machining. Locksets shall be of the tubular type with a flat front 2¼″ x 1⅛″ and a back set of 2½″. U. S. Government Type 160. (Note: U. S. Government Type No. 161 with 2¾″ Backset also available.) Finishes shall be U. S. No. 10 or U. S. No. 28.

Locksets shall have bronze fronts and strikes and wrought bronze knobs and escutcheons. Cylinder locks shall have a protected front.

Top and bottom bolts for the inactive leaf of double doors shall be surface type. They shall be of plated steel, U. S. Government Type F1061. Finishes shall be U. S. No. 10 (U. S. No. 2C also available).

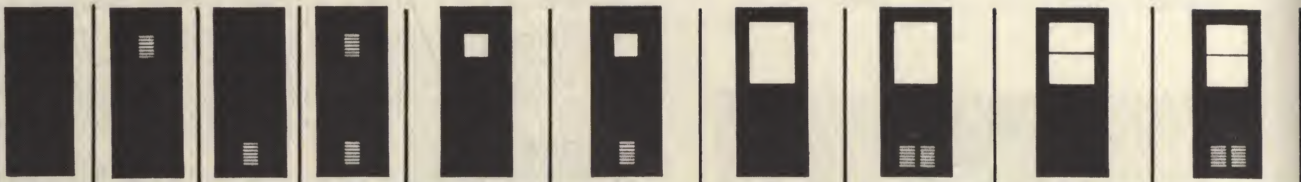
Door closers, where required, shall be standard U. S. Government Type 3001-II. Finishes shall be Bronze Sprayed Enamel (or Aluminum Sprayed Lacquer).

ERECTION: Doors and frames shall be erected plumb and true, with all hardware left in proper working order. Erection shall be done by a competent door erector in accordance with the manufacturer's instructions.

1⅜" full flush

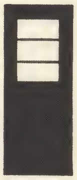
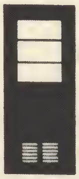
selection table

Upper number designates Door Type.
Lower numbers are Glass Size.



Door Opening Dimensions Width	Height	F	TL	L	DL	V	VL	G	GL	G-2	G-2L
single doors											
1'-6"	6'-8"	1668-F	1668-TL*	1668-L*	1668-DL*						
	7'-0"	1670-F	1670-TL*	1670-L*	1670-DL*						
2'-0"	6'-8"	2068-F	2068-TL*	2068-L*	2068-DL*	2068-V 10¾" x 10¾"	2068-VL* 10¾" x 10¾"				
	7'-0"	2070-F	2070-TL*	2070-L*	2070-DL*	2070-V 10¾" x 10¾"	2070-VL* 10¾" x 10¾"				
2'-4"	6'-8"	2468-F	2468-TL	2468-L	2468-DL	2468-V 10¾" x 10¾"	2468-VL 10¾" x 10¾"	2468-G 15⅜" x 30⅜"	2468-GL 15⅜" x 30⅜"	2468-G2 15⅜" x 15 3/16"	2468-G2L 15⅜" x 15 3/16"
	7'-0"	2470-F	2470-TL	2470-L	2470-DL	2470-V 10¾" x 10¾"	2470-VL 10¾" x 10¾"	2470-G 15⅜" x 34⅜"	2470-GL 15⅜" x 34⅜"	2470-G2 15⅜" x 17 3/16"	2470-G2L 15⅜" x 17 3/16"
2'-6"	6'-8"	2668-F†	2668-TL	2668-L	2668-DL	2668-V† 10¾" x 10¾"	2668-VL 10¾" x 10¾"	2668-G 17⅜" x 30⅜"	2668-GL 17⅜" x 30⅜"	2668-G2† 17⅜" x 15 3/16"	2668-G2L 17⅜" x 15 3/16"
	7'-0"	2670-F†	2670-TL	2670-L	2670-DL	2670-V† 10¾" x 10¾"	2670-VL 10¾" x 10¾"	2670-G 17⅜" x 34⅜"	2670-GL 17⅜" x 34⅜"	2670-G2† 17⅜" x 17 3/16"	2670-G2L 17⅜" x 17 3/16"
2'-8"	6'-8"	2868-F†	2868-TL	2868-L	2868-DL	2868-V† 10¾" x 10¾"	2868-VL 10¾" x 10¾"	2868-G 19⅜" x 30⅜"	2868-GL 19⅜" x 30⅜"	2868-G2† 19⅜" x 15 3/16"	2868-G2L 19⅜" x 15 3/16"
	7'-0"	2870-F†	2870-TL	2870-L	2870-DL	2870-V† 10¾" x 10¾"	2870-VL 10¾" x 10¾"	2870-G 19⅜" x 34⅜"	2870-GL 19⅜" x 34⅜"	2870-G2 19⅜" x 17 3/16"	2870-G2L 19⅜" x 17 3/16"
3'-0"	6'-8"	3068-F†	3068-TL	3068-L	3068-DL	3068-V† 10¾" x 10¾"	3068-VL 10¾" x 10¾"	3068-G 23⅜" x 30⅜"	3068-GL 23⅜" x 30⅜"	3068-G2 23⅜" x 15 3/16"	3068-G2L 23⅜" x 15 3/16"
	7'-0"	3070-F†	3070-TL	3070-L	3070-DL	3070-V† 10¾" x 10¾"	3070-VL 10¾" x 10¾"	3070-G 23⅜" x 34⅜"	3070-GL 23⅜" x 34⅜"	3070-G2 23⅜" x 17 3/16"	3070-G2L 23⅜" x 17 3/16"
double doors											
4'-0"	6'-8"	4068-F	4068-TL*	4068-L*	4068-DL*	4068-V 10¾" x 10¾"	4068-VL* 10¾" x 10¾"				
	7'-0"	4070-F	4070-TL*	4070-L*	4070-DL*	4070-V 10¾" x 10¾"	4070-VL* 10¾" x 10¾"				
4'-8"	6'-8"	4868-F	4868-TL	4868-L	4868-DL	4868-V 10¾" x 10¾"	4868-VL 10¾" x 10¾"	4868-G 15⅜" x 30⅜"	4868-GL 15⅜" x 30⅜"	4868-G2 15⅜" x 15 3/16"	4868-G2L 15⅜" x 15 3/16"
	7'-0"	4870-F	4870-TL	4870-L	4870-DL	4870-V 10¾" x 10¾"	4870-VL 10¾" x 10¾"	4870-G 15⅜" x 34⅜"	4870-GL 15⅜" x 34⅜"	4870-G2 15⅜" x 17 3/16"	4870-G2L 15⅜" x 17 3/16"
5'-0"	6'-8"	5068-F†	5068-TL	5068-L	5068-DL	5068-V†† 10¾" x 10¾"	5068-VL 10¾" x 10¾"	5068-G 17⅜" x 30⅜"	5068-GL 17⅜" x 30⅜"	5068-G2† 17⅜" x 15 3/16"	5068-G2L 17⅜" x 15 3/16"
	7'-0"	5070-F†	5070-TL	5070-L	5070-DL	5070-V†† 10¾" x 10¾"	5070-VL 10¾" x 10¾"	5070-G 17⅜" x 34⅜"	5070-GL 17⅜" x 34⅜"	5070-G2† 17⅜" x 17 3/16"	5070-G2L 17⅜" x 17 3/16"
5'-4"	6'-8"	5468-F†	5468-TL	5468-L	5468-DL	5468-V†† 10¾" x 10¾"	5468-VL 10¾" x 10¾"	5468-G 19⅜" x 30⅜"	5468-GL 19⅜" x 30⅜"	5468-G2† 19⅜" x 15 3/16"	5468-G2L 19⅜" x 15 3/16"
	7'-0"	5470-F†	5470-TL	5470-L	5470-DL	5470-V†† 10¾" x 10¾"	5470-VL 10¾" x 10¾"	5470-G 19⅜" x 34⅜"	5470-GL 19⅜" x 34⅜"	5470-G2 19⅜" x 17 3/16"	5470-G2L 19⅜" x 17 3/16"
6'-0"	6'-8"	6068-F†	6068-TL	6068-L	6068-DL	6068-V†† 10¾" x 10¾"	6068-VL 10¾" x 10¾"	6068-G 23⅜" x 30⅜"	6068-GL 23⅜" x 30⅜"	6068-G2 23⅜" x 15 3/16"	6068-G2L 23⅜" x 15 3/16"
	7'-0"	6070-F†	6070-TL	6070-L	6070-DL	6070-V†† 10¾" x 10¾"	6070-VL 10¾" x 10¾"	6070-G 23⅜" x 34⅜"	6070-GL 23⅜" x 34⅜"	6070-G2 23⅜" x 17 3/16"	6070-G2L 23⅜" x 17 3/16"

*These sizes in louvered doors are single panel as shown. All others are double panels in width.
†Available in Underwriters' doors. When ordering use suffix UW.
See specifications, page 25, for free air flow of louvered types.
NOTE: Consult Fenestra representative for available Slender Light doors. (See Vision Lights on page 9)
††Available in Underwriters' doors—in one leaf only for "B" lable.

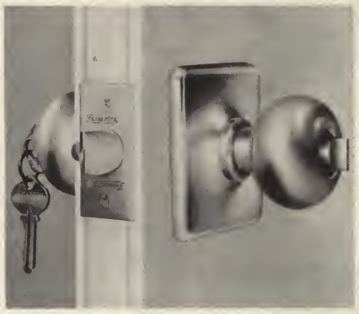
 G-3	 G-3L
2468-G3 15⅜" x 10 1/16"	**2468-G3L** 15⅜" x 10 1/16"
2470-G3 15⅜" x 11⅜"	**2470-G3L** 15⅜" x 11⅜"
2668-G3 17⅜" x 10 1/16"	**2668-G3L** 17⅜" x 10 1/16"
2670-G3 17⅜" x 11⅜"	**2670-G3L** 17⅜" x 11⅜"
2868-G3 19⅜" x 10 1/16"	**2868-G3L** 19⅜" x 10 1/16"
2870-G3 † 19⅜" x 11⅜"	**2870-G3L** 19⅜" x 11⅜"
3068-G3† 23⅜" x 10 1/16"	**3068-G3L** 23⅜" x 10 1/16"
3070-G3† 23⅜" x 11⅜"	**3070-G3L** 23⅜" x 11⅜"
4868-G3 15⅜" x 10 1/16"	**4868-G3L** 15⅜" x 10 1/16"
4870-G3 15⅜" x 11⅜"	**4870-G3L** 15⅜" x 11⅜"
5068-G3 17⅜" x 10 1/16"	**5068-G3L** 17⅜" x 10 1/16"
5070-G3 17⅜" x 11⅜"	**5070-G3L** 17⅜" x 11⅜"
5468-G3 19⅜" x 10 1/16"	**5468-G3L** 19⅜" x 10 1/16"
5470-G3† 19⅜" x 11⅜"	**5470-G3L** 19⅜" x 11⅜"
6068-G3† 23⅜" x 10 1/16"	**6068-G3L** 23⅜" x 10 1/16"
6070-G3† 23⅜" x 11⅜"	**6070-G3L** 23⅜" x 11⅜"

hardware

lock sets

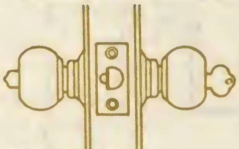
standard duty—1800 series

Modern Fenestra key-in-knob design, tubular type with flat front 2¼" x 1⅛" and full 2½" backset US Govt. Series 160. Fenestra master keying, if desired. Dummy trim to match, for inactive leaf of double door.



hinges-2389

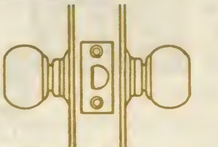
Full mortise type, 3½" x 3½", made to Fenestra template. Prime-painted .122-gauge steel, plain bearing, loose pin. Furnished two per door 6'-8" high, 3 per door 7'-0" high, with machine screws for attachment. (Hinges shipped with frame). Ball Bearing type also available. US Govt. No. T2127-Mod.



entrance

1882

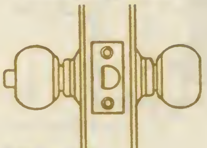
Guarded latch bolt. Outside operation by key or knob, except when set by turn button on inside knob. Inside knob always operative. *Finishes*†: US 10 or 28.
US Govt. No. 160A.



passage set

1883

Plain latch bolt with both sides operated by knobs. Does not lock. *Finishes*†: US 10 or 28.
US Govt. No. 160N.



bedroom

1884

Outside knob locked by auto-release button on inside knob. Turn of inside knob or closing against door strike releases lock—prevents accidental lockout. *Finishes*†: US 10 or 28.
US Govt. No. 160P.

bathroom

1885

Same as 1884 with added emergency feature. Slotted button in outside knob may be turned with coin to unlock door. *Finishes*†: Inside knob polished chrome; outside knob US 10—both sides US 28.
US Govt. No. 160L.

light-duty locksets — 1200 series: US Govt. No. 150. Fits Fenestra machining. Available with round escutcheon only in same function as Standard-Duty Locksets above. Dummy trim to match for inactive leaf of double door.

heavy-duty locksets — 2400 series: US Govt. No. 161. Fits Fenestra machining, has 2¾" backset. Available with square heavy escutcheon only in same functions as Standard-Duty Locksets above. Dummy trim to match for inactive leaf of double door.

push & pull plates

Solid cast grip; .050 metal; wrought plate size 15" x 3½". *Finishes:* US 10 or 28.

2490
U. S. Govt. No. 455 (Mod.)

2491
U. S. Govt. No. 465R (Mod.)

2450
U. S. Govt. No. 455 (C.C. Mod.)

2451
U. S. Govt. No. 465R (C.C. Mod.)

Cut for dead lock cylinder. Specify two-cylinder Part 1882C or cylinder-by-thumb turn function Part 1882D.

door closer - 1461

Approved by Underwriters' Laboratories, Inc. Standard application allows door to open 140° (specify for 180°). Not handed. Consult Fenestra representative for information on mounting brackets and/or special arms, if required. *Finishes:* Bronze-sprayed lacquer or aluminum sprayed lacquer. Packed with 2 reinforcing plates. US Govt. No. 3001-II.

head or foot bolt - 1893

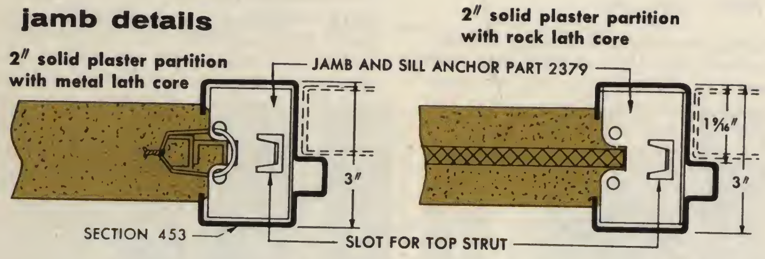
Surface applied. Holds inactive leaf of a pair of doors in a secured position. US Govt. No. F1061 with ⅝" rod. Plated steel. *Finishes:*† US 10, 26D or 2C.

1⅜" full flush

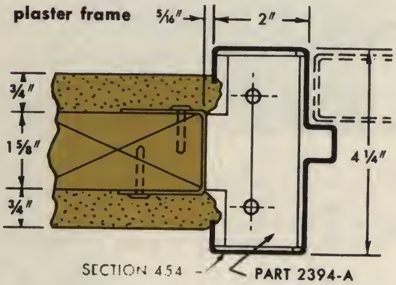
installation details

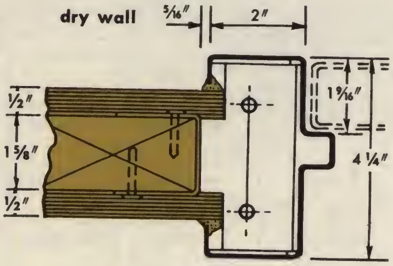
jamb details

3''

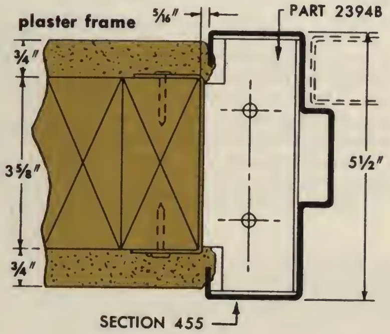

2" solid plaster partition with metal lath core
JAMB AND SILL ANCHOR PART 2379
2" solid plaster partition with rock lath core
1 9/16"
3"
3"
SECTION 453
SLOT FOR TOP STRUT

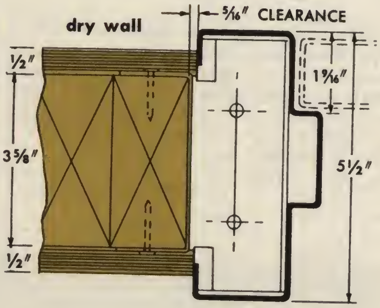
4¼''



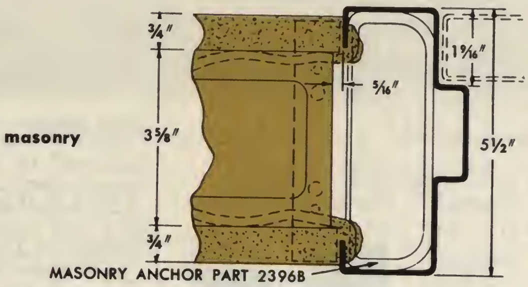


5½''

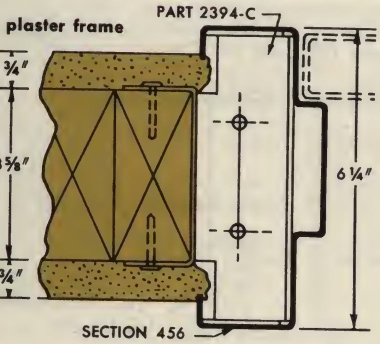


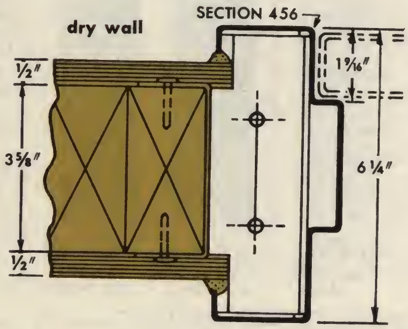


5½''

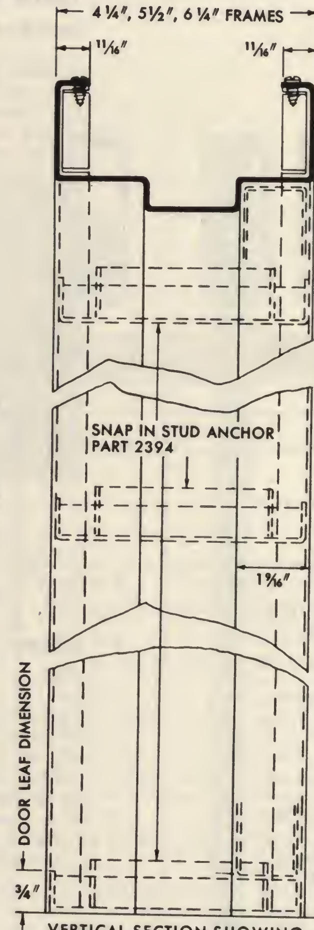


6¼''



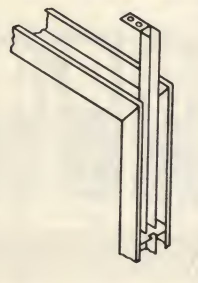


vertical section

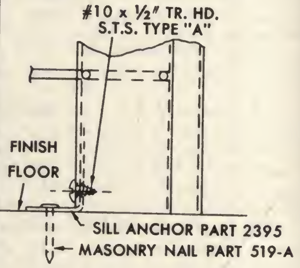


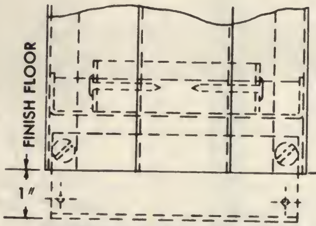
VERTICAL SECTION SHOWING ANCHORS FOR STUD CONSTRUCTION WITH FRAME AT FLOOR LEVEL

top strut part 2388 for 3" frames when specified

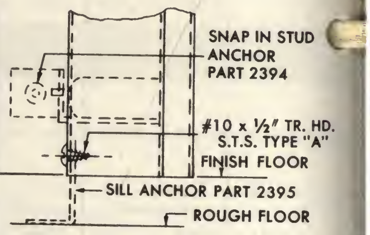


masonry construction



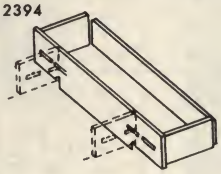


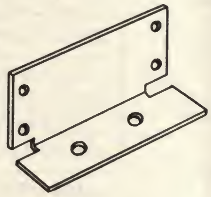
ALTERNATE DETAIL SHOWS ANCHORS FOR STUD CONSTRUCTION WITH FRAME 1" ABOVE SUB FLOOR


SNAP IN STUD ANCHOR PART 2394
#10 x ½" TR. HD. S.T.S. TYPE "A"
FINISH FLOOR
SILL ANCHOR PART 2395
ROUGH FLOOR

NOTE: Jamb stud anchors (3 per jamb) furnished with standard frames part 2394 A—4 ¼", B—5½", C—6 ¼". Adjustable sill anchors (1 per jamb) part 2395 A—4 ¼", B—5½", C—6 ¼", and masonry anchors (3 per jamb) part 2396 A—4 ¼", B—5½", C—6 ¼", furnished when specified. Removable sill spreader angles part 2377 furnished when specified.

2394





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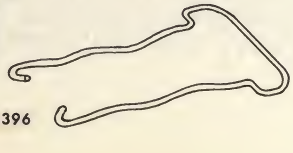


2396

specifications

GENERAL: All interior swinging doors shall be Fenestra 1⅜" full flush, multi-rib construction as manufactured by Fenestra Incorporated. (Handing need not be specified—doors can be used either right or left hand swing in or out).

CONSTRUCTION: Face panels (both sides of door) shall be formed of No. 20 U. S. gauge cold-rolled, leveled steel. Perimeter closures (hinge and lock members and top and bottom members) and interior reinforcements shall be formed of No. 18 U. S. gauge cold-rolled steel. Doors to be designed and constructed so that all seams of joints shall be on edges of door, and faces of door will show smooth, unbroken surfaces.

Perimeter closures and interior reinforcements shall be securely assembled to produce a rigid interior structural support for face panels to prevent any racking or warping of door. (There shall be *not less than 7 horizontal* reinforcements per door). Perimeter closures and interior reinforcements shall be welded to both face panels of door, with horizontal spacing of welds not to exceed 7" center to center. All horizontal members shall be provided with slots to allow ventilation of the interior of door.

Doors shall be machine mortised and reinforced for locks and hinges with heavy-gauge reinforcing braces securely welded to inside of vertical perimeter closures and reinforcements. Provisions for door closer reinforcements shall be made in all doors over 2'-0" width. Closers shall be furnished with reinforcement insert plates to be applied to doors in the field.

Half-panel and vision light doors (*vision light to have maximum area of 100 square inches*) are to be constructed to permit easy installation of glass and are to be provided with snap-in-type glazing strips which do not require screws. (*Glass and glazing by others*).

Louvered doors (if required) shall have integrally pierced louvers in both face panels of doors (specify—top, bottom or both). 1'-6"- and 2'-0"-wide doors shall have a single row of louvers (in each location). 2'-4"-, 2'-6"-, 2'-8"- and 3'-0"-wide doors shall have a double row of louvers (in each location).

Approximate free air flow (square inches)

Door Type	*One Louver*	*Two Louver*
1'-6"	16	32
2'-0"	16	32
2'-4"	32	64
2'-6"	32	64
2'-8"	32	64
3'-0"	32	64

FRAMES: Frames shall be No. 18-gauge steel, roll-formed, mitered lock joint, with integral stops and rebates. Frames shall be 2" wide on inside and outside face and (specify: 3", 4¼", 5½" or 6¼") deep. Jambs shall be constructed to set on finished floor. Rubber mutes shall be shipped attached to lock jambs (single doors) or head members (double doors).

Frames shall be shipped knocked down and shall be mortised and reinforced with heavy-gauge reinforcements for hinges and lock strikes. Sill anchors shall be furnished for attaching frames to floor and jamb anchors (3 each jamb) for bonding frames to wall. (Steel spreaders to insure parallel alignment of jambs are supplied when specified).

SHOP FINISH: Doors shall be protected inside and outside against corrosion, factory prime-painted and sound-deadened. Frames shall be Bonderized and receive one shop coat of baked-on metallic primer.

HARDWARE: Hardware shall be Fenestra and shall be shipped separately for attachment in the field.

Hinges shall be 3½" x 3½", full mortise, made to Fenestra template, steel, .122 gauge, prime-painted, and shall be furnished 2 per leaf for 6'-8" doors and 3 per leaf for 7'-0" doors, with machine screws for attaching to doors and frames.

Locksets shall be key-in-knob type for cylinder functions and shall provide all conventional functions in one standardized machining. They shall be cylindrical or bored type with flat front 2¼" x 1⅛" and backset of 2½", U. S. Govt. Type 160. (Alternate: heavy duty cylindrical or bored type lock, U. S. Govt. Type 161, with 2¾" backset and front 2¼" x 1⅛").

Push and pull plates shall be 15" x 3½" (plate size) bronze, U. S. Govt. Type 465R and 455 respectively. Finishes shall be bronze US 10 or anodized aluminum US 28.

Tubular cylinder deadlocks for use with push and pull plates shall have front 2¼" x 1⅛" with backset of 2½". Functions to be: two-cylinder (U. S. Govt. Type 181-M) or cylinder-by-thumb turn (U. S. Govt. Type 181-K). Finishes shall be bronze US 10 or anodized aluminum US 28.

Surface bolts shall be supplied for top and bottom of inactive leaf of all double doors for attachment in the field. They shall be U. S. Govt. Type F 1061. Finishes: US 10, U. S. 2C and US 26D.

Door closers, where required, shall be U. S. Govt. Type 3001-size II, for attachment in the field. Finishes: sprayed bronze lacquer or sprayed aluminum lacquer.

ERECTION: Doors and frames shall be erected plumb and true, with all hardware left in proper working order. Erection shall be done by a competent door erector and in accordance with door manufacturer's instructions.

1¾″ panel

The Fenestra 1¾″ panel doors are built to precise standards. All mortising, drilling, tapping and prime-painting complete at factory. Every door identical in appearance on both sides. Carefully wrapped for shipment with heavy corrugated paper and secured by steel bands.

panel

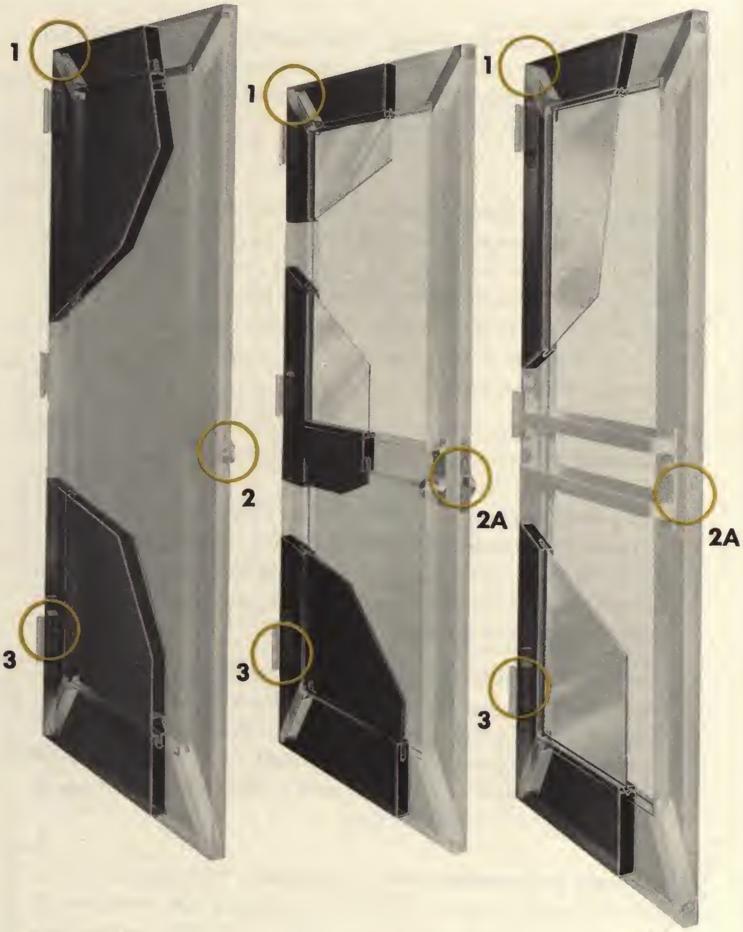
flush panel

entrance

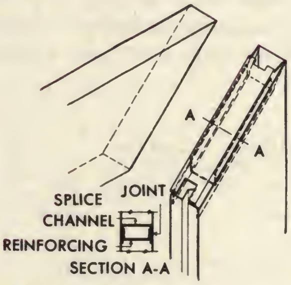
Fen-Air (air conditioned)

construction features

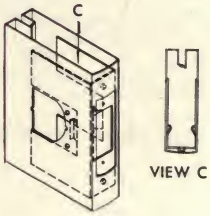
flush panel **panel** **entrance**



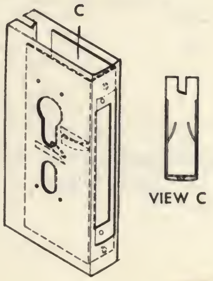
① **corner miter**



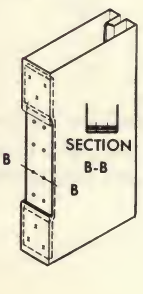
② **lock reinforcement**



(2A) **lock reinforcement**



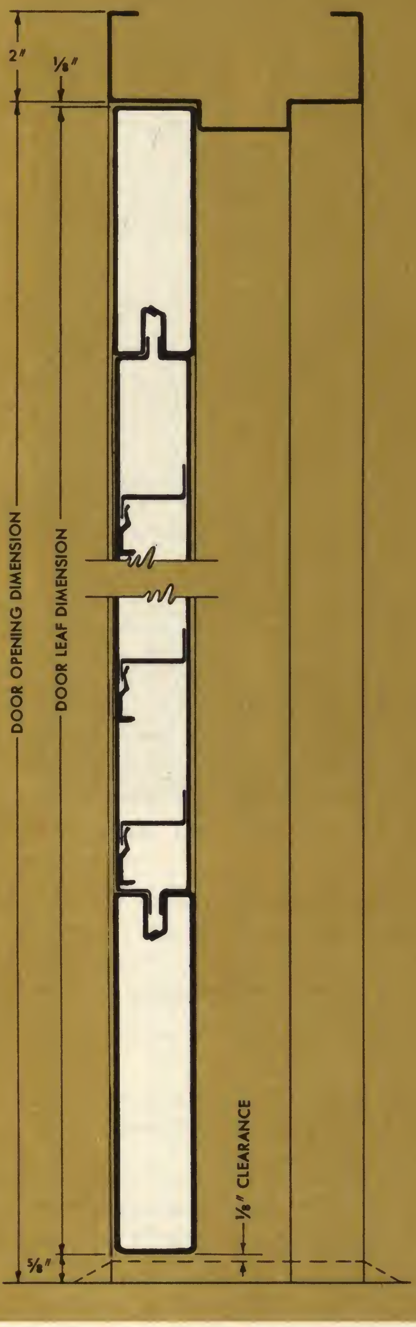
③ **hinge reinforcement**



Hollow metal stiles and rails, heavy 16-gauge steel. Bottom rails 8" x 1¾"; jamb stiles and top rails, 5½" x 1¾". Corners mitered, welded and ground smooth. Top and bottom door surfaces closed.

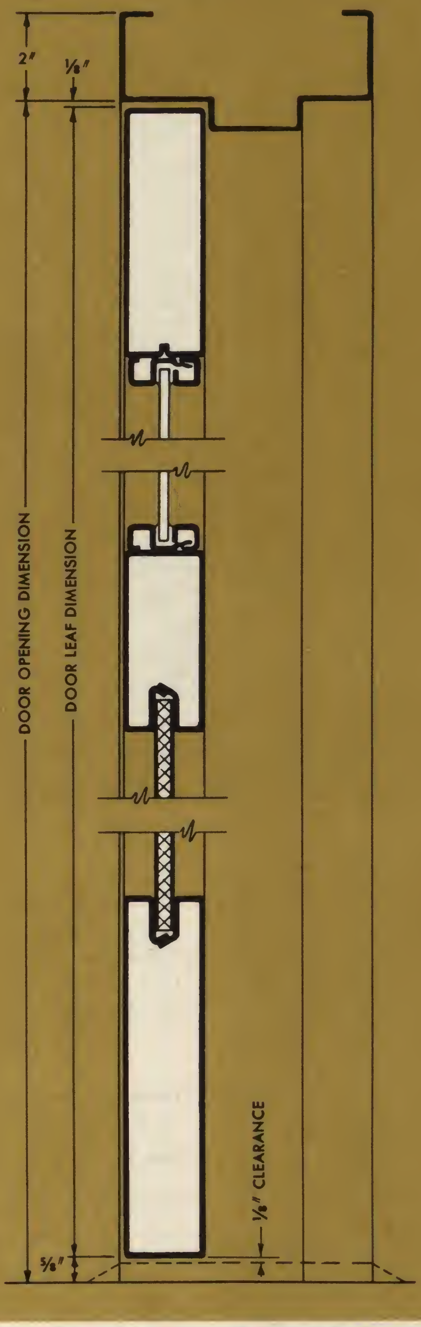
flush panel

Flush panels are of 18-gauge cold-rolled steel plate. These plates rigidly reinforced by horizontal Z bars on 14" centers; tack welded to panels. Interior sides sprayed with sound-deadening material.



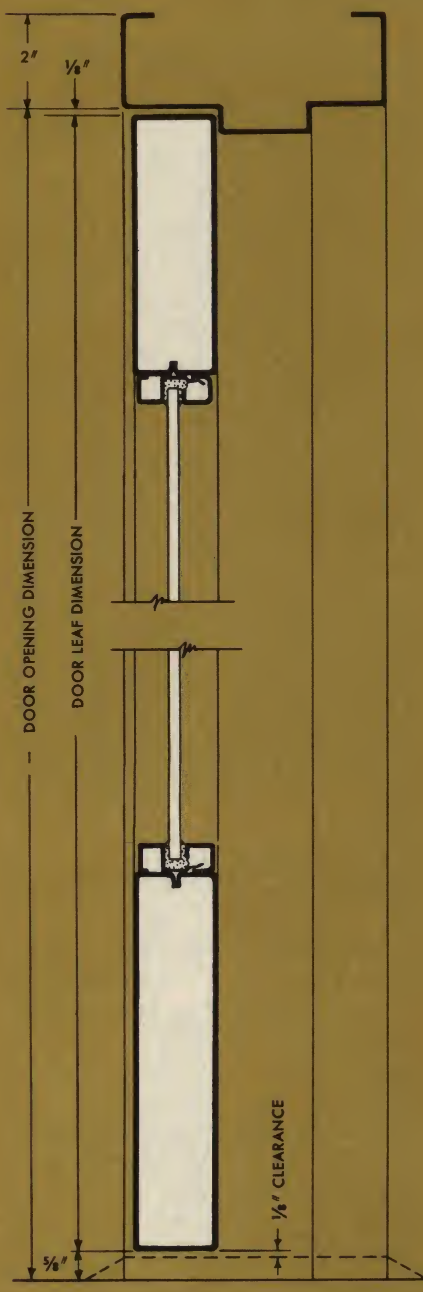
panel

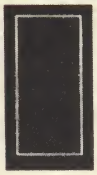
Panels composed of two 18-gauge plates of cold-rolled, stretcher-leveled steel, joined by insulation for a total thickness of ⅜". Muntins and snap-on moldings formed from 18-gauge steel and accommodates ¼" glass (glass not supplied).

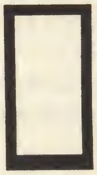


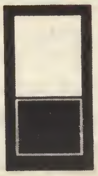
entrance

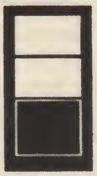
Snap-on moldings formed from 18-gauge steel and accommodate full-length ¼" glass (glass not supplied).




M


LG


G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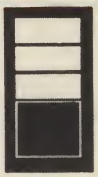
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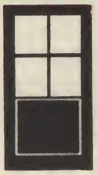
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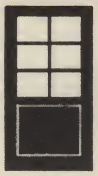
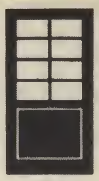

G6


G8

1¾″ panel

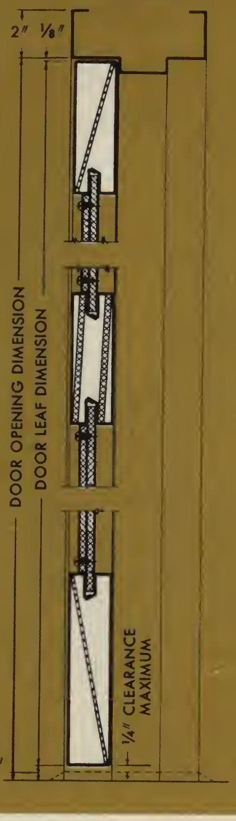
Underwriters' Label doors

These sturdy doors pass 1½ or ¾ hour tests and carry Underwriters' B, C, D and E label.

For door and frame construction details and suitable hardware, see specification below.

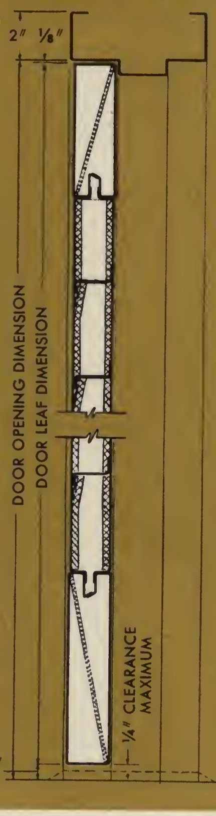
panel B label

1½-hour test



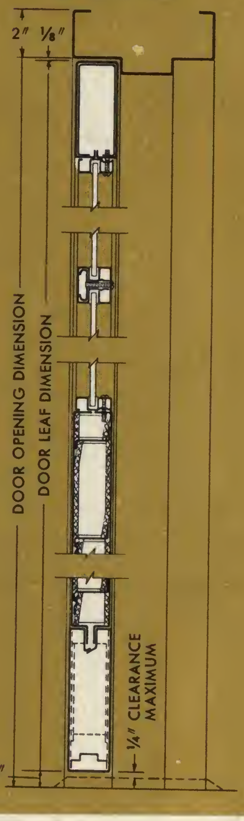
flush panel B label

1½-hour test



C and E label

¾-hour test



specifications (Underwriters' Label)

GENERAL: All doors for Underwriters' Class B, C, D or E openings, shall be Fenestra Underwriters' Label Hollow Metal (specify flush or panel) Type Doors manufactured by Fenestra Incorporated.

CONSTRUCTION: Stiles and rails shall be No. 16-gauge steel. Bottom rail shall be 8″ x 1¾″. Jamb stiles and top rail shall be 5½″ x 1¾″. Center rail (panel-type door) shall be 4″ x 1¾″. Stiles and rails shall be mitered at door corners, welded and ground smooth.

On the B & D Label Doors the stiles and rails shall be insulated with a layer of ⅛″ asbestos millboard. Center rail of panel B & D opening doors shall have two layers of ¼″ asbestos millboard insulation.

Flush Panel type: Door panel shall consist of two 18-gauge (.048) steel sheets separated by 18-gauge Z bar horizontal reinforcing. Z bars spaced approximately 14″ o.c. The panel shall be insulated by two layers of ⅛″ minimum asbestos millboard held in place by separators.

Panel type: Both upper and lower panels shall consist of two (three for B & D doors rated 250° F) No. 18-gauge (.048) metal sheets with ¼″ asbestos insulation between them.

Door leaf shall be designed to present an identical appearance from both sides.

Vision lights allowed on "B", "C" and "E" label doors only. If required, not to exceed 100 sq. in. per door opening; one vision light, 10″ 10″, unglazed, shall be installed on single doors and on the active leaf of double doors.

If required, provision shall be made in the construction of doors for C and E class openings for the installation of half-panel glass areas (glass and glazing by others). Individual glass lights shall not exceed 400 sq. in. exposed area.

Lock and hinge stiles shall be accurately mortised and reinforced to receive locks and hinges.

Inactive leaf of each pair of double doors shall be equipped with a pressed metal astragal formed of No. 16-gauge steel.

Swing door leaf dimensions shall allow for clearances of ⅛" at head and jambs, ¼" at meeting rail of double doors, and ⅝" at sill (to allow for ½" threshold with bottom clearance not exceeding ¼").

FRAMES: Frames shall be of No. 16-gauge rolled steel formed with integral stops and rebates.

Frames shall be shipped knocked down and shall be machined for attachment of hardware, including mortising, reinforcing, drilling and tapping for hinges. They shall be equipped with adjustable anchors welded to jamb members.

HARDWARE: Hardware shall be furnished by door manufacturer and shall be packed and shipped separately for attachment in the field.

Hinges shall be steel and shall be 5" x 4½" full mortised template type. Machine screws shall be used to attach hinges to doors and frames.

Flush panel doors shall have single point locks or latches of the key-in-knob type (2270, 2271, 2272 and 2273); having ½" throw, backset 2¾", U.S. Govt. Type 140.

Panel doors shall have single point locks or latches having ½" throw (1660 and 1660-C have ¾" throw), backset 2¾", U.S. Govt. Type 86.

All locks and latches shall have bronze fronts and strikes and wrought bronze knobs and escutcheons. Cylinder locks shall have a protected front.

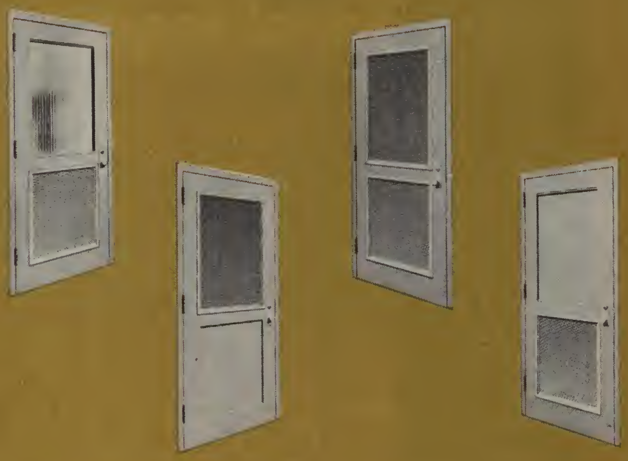
Top and bottom bolts shall be supplied for inactive leaf of double doors. Door checks, where required, shall be standard U.S. Govt. Type 3001.

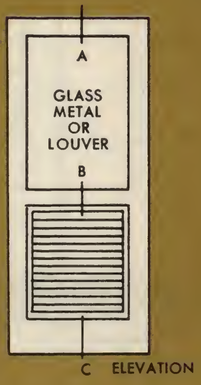
SHOP FINISH: Doors shall receive one shop coat of baked-on metallic primer before shipment. Frames shall be Bonderized and receive one shop coat of baked-on metallic primer before shipment.

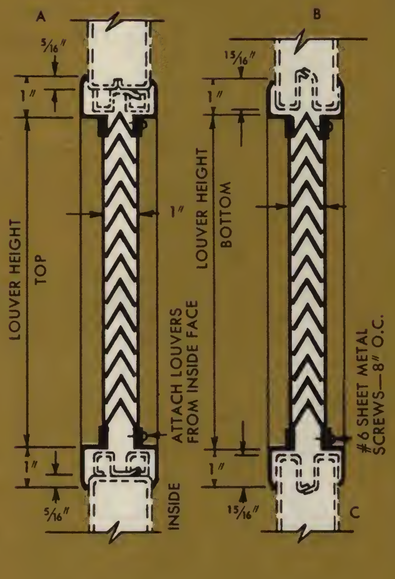
ERECTION: Doors and frames shall be erected plumb and true, with all hardware left in proper working order. Erection shall be done by a competent door erector and in accordance with the door manufacturer's instructions.

Fen-Air (air conditioned)

Fenestra Fen-Air Doors are fitted with new fin-type full louvers at the bottom, top or in both panels. This allows complete flexibility to choose the right amount of free air circulation needed for the most efficient cooling and heating design. Glass lights or solid panels may be used as needed. Louvers stocked for four sizes of panel doors.





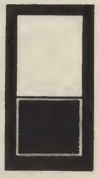
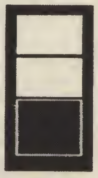
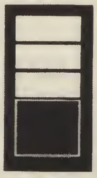
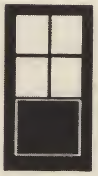
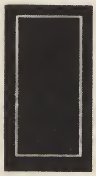
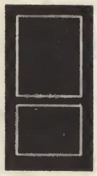
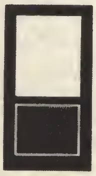
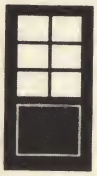


Fen-Air louvers are steel, fixed horizontal fin type, designed for appearance, maximum free air flow and privacy.

door type	door size	free air space: upper panel louver	free air space: lower panel louver	free air space: upper & lower panel louvers
2868	2'-8" x 6'-8"	420 sq. in.	375 sq. in.	795 sq. in.
2870	2'-8" x 7'-0"	480 sq. in.	375 sq. in.	855 sq. in.
3068	3'-0" x 6'-8"	500 sq. in.	450 sq. in.	950 sq. in.
3070	3'-0" x 7'-0"	570 sq. in.	450 sq. in.	1020 sq. in.

1¾" panel

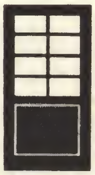
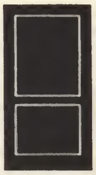
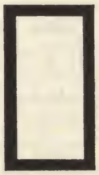
selection table Upper number designates Door Type. Lower numbers are Glass Size.

Door Opening Dimensions		both flush and panel doors					panel doors only	
						Flush  Panel 		
Width	Height	G	G-2	G-3	G-4	M	G	G-6
single doors								
2'0"	6'8"					2068-M		
	7'0"					2070-M		
2'6"	6'8"	2668-G 19½" x 32¾"	2668-G2 19½" x 16"	2668-G3 19½" x 10⅜"		2668-M		
	7'0"	2670-G 19½" x 36¾"	2670-G2 19½" x 18"	2670-G3 19½" x 11¾"		2670-M		
2'8"	6'8"	2868-G 21½" x 32¾"	2868-G2 21½" x 16"	2868-G3 21½" x 10⅜"		2868-M		
	7'0"	2870-G 21½" x 36¾"	2870-G2 21½" x 18"	2870-G3 21½" x 11¾"		2870-M		
3'0"	6'8"	3068-G 25½" x 32¾"	3068-G2 25½" x 16"	3068-G3 25½" x 10⅜"		3068-M**		
	7'0"	3070-G 25½" x 36¾"	3070-G2 25½" x 18"	3070-G3 25½" x 11¾"		3070-M**		
3'4"	6'8"	3468-G 29½" x 32¾"			3468-G4 14⅜" x 16"	3468-M		
	7'0"	3470-G 29½" x 36¾"			3470-G4 14⅜" x 18"	3470-M**		
3'8"	6'8"	3868-G 33½" x 32¾"			3868-G4 16⅜" x 16"	3868-M		
	7'0"	3870-G 33½" x 36¾"			3870-G4 16⅜" x 18"	3870-M**		
4'0"	7'0"	4070-G 37½" x 36¾"			4070-G4 18⅜" x 18"	4070-M		
	8'0"						4080-G 37½" x 48¾"	4080-G6 18⅜" x 15¾"
5'0"	10'0"							
double doors								
5'0"	6'8"	5068-G 19½" x 32¾"	5068-G2 19½" x 16"	5068-G3 19½" x 10⅜"		5068-M		
	7'0"	5070-G 19½" x 36¾"	5070-G2 19½" x 18"	5070-G3 19½" x 11¾"		5070-M		
5'4"	6'8"	5468-G 21½" x 32¾"	5468-G2 21½" x 16"	5468-G3 21½" x 10⅜"		5468-M		
	7'0"	5470-G 21½" x 36¾"	5470-G2 21½" x 18"	5470-G3 21½" x 11¾"		5470-M		
6'0"	6'8"	6068-G 25½" x 32¾"	6068-G2 25½" x 16"	6068-G3 25½" x 10⅜"		6068-M**		
	7'0"	6070-G 25½" x 36¾"	6070-G2 25½" x 18"	6070-G3 25½" x 11¾"		6070-M**		
6'8"	6'8"	6868-G 29½" x 32¾"			6868-G4 14⅜" x 16"	6868-M		
	7'0"	6870-G 29½" x 36¾"			6870-G4 14⅜" x 18"	6870-M		
7'4"	6'8"	7468-G 33½" x 32¾"			7468-G4 16⅜" x 16"	7468-M		
	7'0"	7470-G 33½" x 36¾"			7470-G4 16⅜" x 18"	7470-M		
8'0"	7'0"	8070-G 37½" x 36¾"			8070-G4 18⅜" x 18"	8070-M		
	8'0"						8080-G 37½" x 48¾"	8080-G6 18⅜" x 15¾"
10'0"	10'0"							

**Available also in Underwriters' Doors.

When ordering doors, use prefix in nomenclatures as follows: For Flush Doors use prefix (e.g., F-3470-M); for Panel Doors use prefix P (e.g., P-2868-G2). For Underwriters' use suffix UW. Entrance Doors use suffix LG.

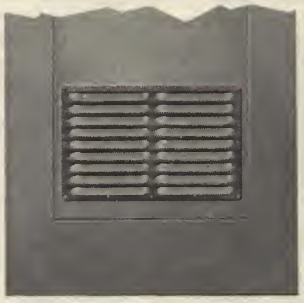
entrance doors

 G-8	 M	 LG	Door Opening Dimensions Height	Door Opening Dimensions Width
			6'8"	2'0"
			7'0"	
			6'8"	2'6"
			7'0"	
			6'8"	2'8"
			7'0"	
			6'8"	3'0"
		3070-LG 25½" x 69¼"	7'0"	
			6'8"	3'4"
			7'0"	
			6'8"	3'8"
		3870-LG 33½" x 69¼"	7'0"	
			7'0"	4'0"
	4080-M		8'0"	
50100-G8 24⅜" x 15¾"			10'0"	5'0"
			6'8"	5'0"
			7'0"	
			6'8"	5'4"
			7'0"	
			6'8"	6'0"
		6070-LG 25½" x 69¼"	7'0"	
			6'8"	6'8"
			7'0"	
			6'8"	7'4"
		7470-LG 33½" x 69¼"	7'0"	
			7'0"	8'0"
	8080-M		8'0"	
100100-G8 24⅜" x 15¾"			10'0"	10'0"

see page 9 for information on how to determine hand and swing of doors.

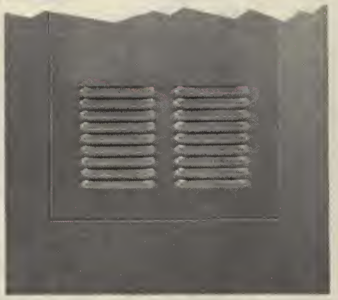
louvers

surface applied

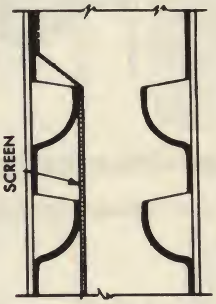


for field or warehouse application.

pierced

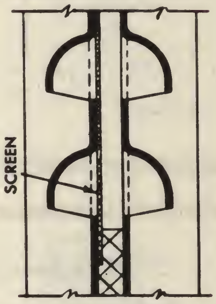


furnished from factory only.



Flush Type

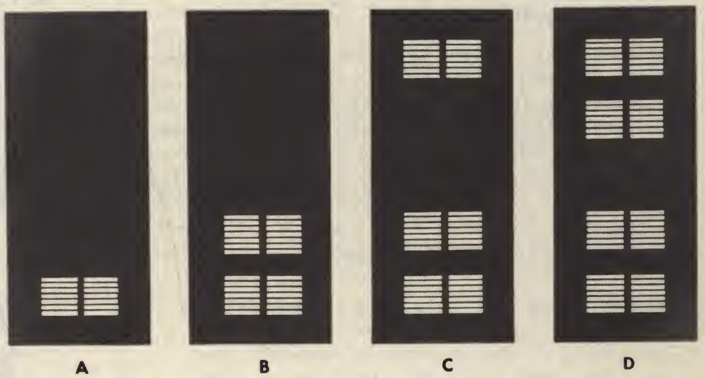
vertical sections thru pierced type louvers.



Panel Type

door opening width	surface-applied		pierced type—free air space		
	part no.	free air space	A	B or C	D
2'0"	1917-12	34 sq. in.	27 sq. in.	54 sq. in.	108 sq. in.
2'6"	1917-12	34 sq. in.	34 sq. in.	68 sq. in.	136 sq. in.
2'8" & 3'0"	1917-19	55 sq. in.	55 sq. in.	110 sq. in.	220 sq. in.
3'4"	1917-27	82.5 sq. in.	69 sq. in.	138 sq. in.	276 sq. in.
3'8" & 4'0"	1917-27	82.5 sq. in.	82.5 sq. in.	165 sq. in.	330 sq. in.

PIERCED TYPE DESIGNATION



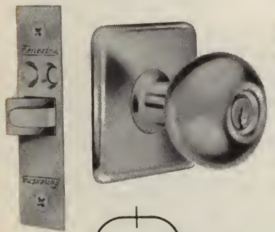
NOTE: "A" and "B" available on both Flush Panel and Panel doors. "C" and "D" available on Flush Panel doors only.

1¾″ panel hardware

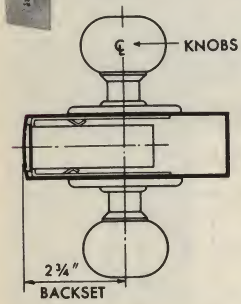
NOTE: The hardware shown on these pages and on pages 10 through 15, with the exception of the cylindrical locks on page 10 are applicable to 1¾″ panel doors and 1¾″ flush panel doors.

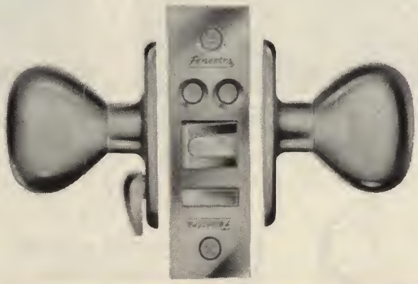
key-in-knob locks

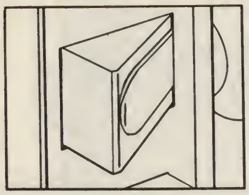
Standard for Fenestra flush panel doors. Also available for panel doors. A modern series with dead-bolt security, all conventional functions and ease of installation. 30% fewer parts than conventional mortise locks. Self-lubricating. Oilite bearings. All have Underwriters' B label approved. US Govt. Series 140. *Finishes:* US 10 or 28. Additional functions and finishes available on special order. Fenestra master keying, if desired.



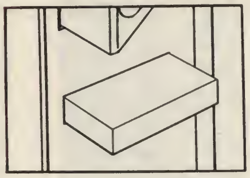
Fenestra Madison design: Smooth surfaces, square heavy-wrought escutcheons, with softly rounded beveled edges and graceful, cold-forged knobs. An attractive design, ideal where complete simplicity is desired.



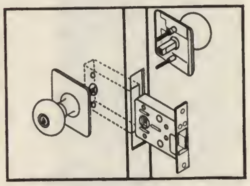




Latch with nylon insert: tough, self-lubricating nylon insert in the latch bolt lets the door latch within a fraction of the closing force required by conventional bolts. And nylon's superiority increases with use. Closer may be set for minimum speeds to provide silent closing with no sacrifice of latching efficiency. No metal-to-metal contact, no marring of bolt or strike—the nylon cosert projects beyond the bolt itself.



The Fenestra dead bolt: A secure dead bolt, placed horizontally to provide maximum protection. No other key-in-knob lock has this dead bolt.

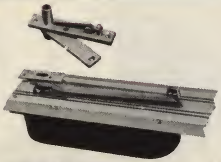


Fast 3-step installation: Factory assembled in three self-aligning parts. Nylon inserts in through bolt threads prevent loosening. Knobs are securely anchored to escutcheons by retaining rings. Avoids expense and inconvenience of constant adjustments.

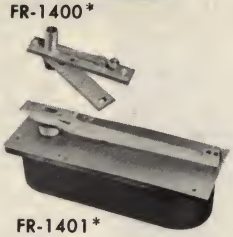
checking floor type

Double acting: Center-pivoted. Closing and hydraulic checking mechanism for doors swinging both ways. Spring power and checking resistance have four separate adjusting controls. Typical use: on doors between kitchen and dining areas, in corridors, operating rooms. For interior doors not over 3′-4″ wide. Eliminates use of hinges and surface door closers. US Govt. Type 3510-I. *Finishes:* US 10, 28* not handed. Specify when ordering: Part No., finish. For FR 1400*, give opening width and state if for pair of doors.

Single acting: Offset-pivoted. Closing and hydraulic checking mechanism for single swing doors. Spring power and checking resistance have two adjusting controls. Typical use: on doors in entrances and exits; vestibules; corridors of schools, hospitals and commercial buildings. For interior doors up to 4′-0″ wide and exterior doors up to 3′-4″ wide. Eliminates use of hinges and surface door closers. US Govt. Type 3520A-III. *Finishes:* US 10, 28*. Specify when ordering: Part No., finish, hand (right or left). For FR 1450*, give opening width, state if for pair of doors.



FR-1400*



FR-1401*

FR-1450*

FR-1451*

Spring pivot hinge FR1455 (double-acting) Spring-powered closing mechanism for doors swinging both ways on center pivots. Checking control by adjusting spring tension. For double-acting interior doors up to 3′-0″ wide. Plated steel. *Finishes:* US 10, 26D†. Not handed. US Govt. No. 2334-Mod.

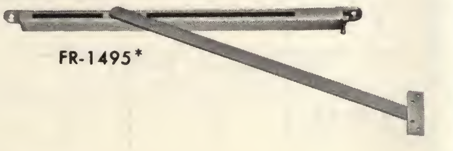
FR-1455*

Overhead door holder and shock absorber

FR 1495*—For single-acting doors hung on Fenestra full-mortise or half-mortise hinges. Has optional hold open at 90° position set by turn of control handle. Encased shock absorber cushions outward swing. Surface applied with six bolts. Bronze. *Finishes:* US 10, 26D. US Govt. Type 1161. Specify when ordering. Part No., finish, door width, hand (right or left).

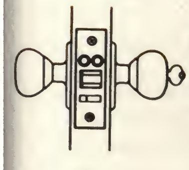
FR 1498*—Same as FR 1495*, except for door hung on Fenestra checking door-type door closers FR 1450* or FR 1451* (offset pivoted). US Govt. Type 1161A. Specify when ordering: Part No., finish, door width, hand (right or left).

NOTE: If holder FR 1495* is used on doors with closers 1462, 1463 or 1464 on brackets, specify closer with inverted arm and corner bracket.

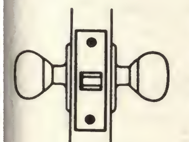


FR-1495*

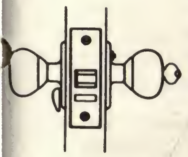
* Available on special order.



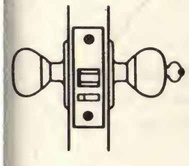
office
2270
Outside by key, both sides by knobs except when outside knob is locked by stop in front. Guarded latch bolt.
US Govt. No. 140E.



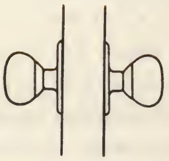
passage latch
2271
From both sides by knobs.
US Govt. No. 140N.



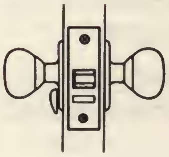
general-purpose
2272
Dead bolt from outside by key, from inside by turn lever. Latch bolt from both sides by knobs.
US Govt. No. 140B



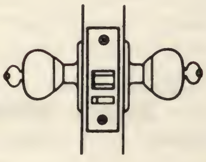
classroom
2273
Outside by knob except when locked from outside by key. Inside by knob at all times. Guarded latch bolt.
US Govt. No. 140J.



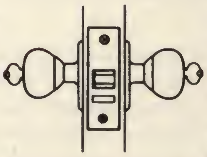
dummy trim
2275 *
Matching trim for inactive leaf of pairs of doors. May be used as pulls. No mechanical operation.



bathroom
2271-L*
Latch bolt from both sides by knobs. Dead bolt from outside by emergency key; from inside by turn lever.
US Govt. No. 140L.



key-controlled access
2270-G*
From outside by key, from inside by knob. From outside by knob, except when locked from inside by key. Guarded latch bolt.
US Govt. No. 140G.



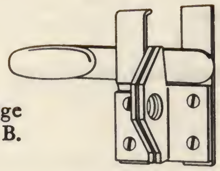
double-cylinder utility
2272-C*
Dead bolt from both sides by key. Latch bolt from both sides by knobs.
US Govt. No. 140C.

***Available on special order**

tee latch

1648

Simple latching device used generally on doors in storage sheds, industrial buildings, etc. *Finish:* Japan black, US 1B.



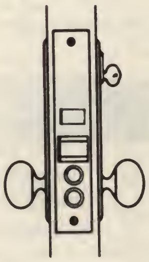
Underwriters' lock

1660

Antifriction latch bolts with ¾" throw. One cylinder. Guarded latch. Latch bolt both sides by knobs. Latch bolt by key when outside knob is locked by stops in face. US Govt. No. 87E.

1660-C

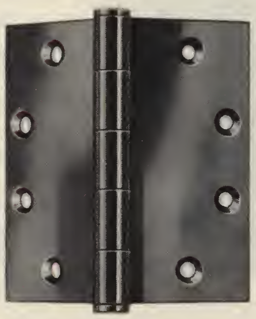
Same as 1660 except no cylinder or stop works. Latch by knobs both sides at all times. US Govt. No. 87N.

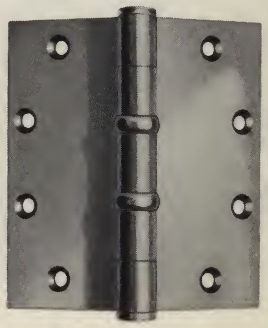


hinges

full mortise

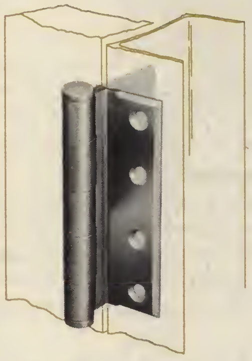
For Fenestra doors hung in rolled or pressed metal Fenestra frames. Both frame and door leaves mortise applied. 5" x 4½"—regular weight—.146 ga. Loose pin.

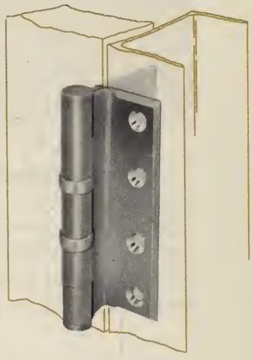




half mortise

For Fenestra doors hung in structural frames. Door leaf mortise applied. Frame surface applied. 5"—regular weight—.146 ga. Loose pin.





	part no.	ball bearing	material	finish	US Govt. No.
full mortise	1643	no	steel	prime-painted	T2127
	1643A	yes	steel	prime-painted	T2107
	1643B	yes	solid bronze	US 10, 26D†	T2106
half mortise	S1643	no	steel	prime-painted	T2145-Mod.
	S1643A	yes	steel	prime-painted	T2145
	S1643B	yes	solid bronze	US 10, 26D†	T2142

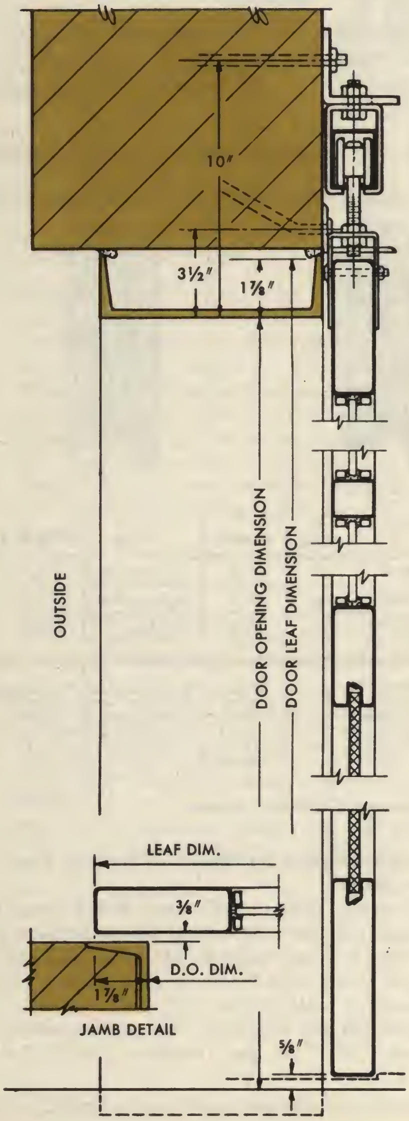
†US 10—dull bronze; US 26D—dull chromium

All Fenestra hinges are made to US Govt. standard template.

Plain-bearing hinges 1643 and S1643 should generally be applied on doors having low-frequency usage. Ball-bearing hinges should be applied generally on doors with higher frequency usage, as well as doors with closers 1462, 1463 or 1464.

When hinges are required with non-removable pins, add NRP* to part number (i.e. 1643A-NRP*).

1¾" panel

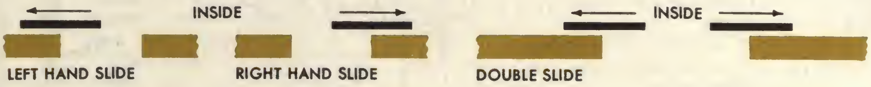


panel slide doors

Hollow metal stiles and rails made from heavy 16-gauge steel. Bottom rails 8" x 1¾"; jamb stiles and top rails, 5½" x 1¾"; center rails, 4" x 1¾". Stiles and rails mitered at corners, welded and ground smooth. Muntins and snap-on moldings formed from 18-gauge steel and accommodate ¼" glass (glass not supplied). Bottom panels composed of two 18-gauge steel plates joined by insulation for a total thickness of ⅜".

Frames not supplied, but construction drawings available. Complete line of hardware as shown below. Astragal supplied on double doors.

handing information

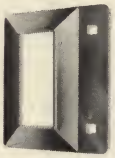


selection table

Single Doors				Double Doors		
Door Type	Opening Dim. Width	Opening Dim. Height	Glass Size	Door Type	Opening Dim. Width	Opening Dim. Height
3070-G2-SL	2'8"	6'10"	25½" x 18"	6070-G2-SL	5'8"	6'10"
4080-G6-SL	3'8"	7'10"	18⅜" x 15¾"	8080-G6-SL	7'8"	7'10"
50100-G8-SL	4'8"	9'10"	24⅜" x 15¾"	100100-G8-SL	9'8"	9'10"

hardware(solid steel, black finish)

door pull



1265

Flush type.

Furnished two per door leaf, attached both sides.

trolley

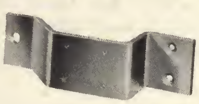
1617

Roller-bearing construction.

hasp and staple

1639 For both single and double doors. Padlock not supplied

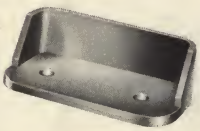
stop



1642

Machined to receive hasp and staple. For single doors only. Stop 1796 is used at center of double doors.

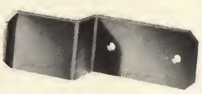
guide



1649

Attaches to floor at jamb of single door opening and at center of double doors (inside and outside).

binder



1267

Holds door close to wall in open position. For single and double doors.

specifications (swing and slide)

GENERAL: All swinging or sliding steel doors, single and double, shall be Fenestra Hollow Metal Swing or Slide Doors, as manufactured by Fenestra Incorporated.

CONSTRUCTION: Stiles and rails shall be No. 16-gauge steel. Bottom rail shall be 8″ x 1¾″. Jamb stiles and top rail shall be 5½″ x 1¾″. Center rail (panel doors only) shall be 4″ x 1¾″. Stiles and rails shall be mitered at door corners, welded and ground smooth. The design of the door leaf shall be such as to present an identical appearance from either side.

Panel type: Lower door panel shall be fitted with two No. 18-gauge steel plates, with a layer of insulation between them, to make a total thickness of ⅜″, and shall be locked to door stiles and rails at assembly. Upper metal door panel (where used) shall be fitted with tow 18-gauge steel plates, with a layer of insulation between them, to make a total thickness of ⅜″; it shall be held in place by continuous glazing moldings formed from No. 18-gauge steel.

Flush type: Metal door panel shall be fitted with two No. 18-gauge steel sheets separated by No. 18-gauge horizontal reinforcing Z bars spaced approximately 14″ o.c. The panel sheets shall be sprayed on the inside with an approved sound-deadening material to a thickness of approximately 1/16″.

Panel and Flush type: Upper portion shall be arranged to receive: (a) one large light of ¼″ glass; or (b) a division into two or more glass lights (in accordance with door manufacturer's standard types) by the use of No. 18-gauge pressed steel muntins. Glass in upper door panel shall be held by continuous glazing moldings formed from No. 18-gauge steel.

Lock and hinge stiles shall be accurately mortised and reinforced to receive locks and hinges.

Inactive leaf of each pair of double doors shall be equipped with a pressed metal astragal formed from No. 16-gauge steel.

Swing door leaf dimensions shall allow for clearances of ⅛″ at head and jambs, ¼″ at meeting rail of double doors and ⅝″ at sill (to allow for ½″ threshold).

Slide door leaf dimensions shall allow for lapping the opening 1⅞″ at head and jambs, with clearance of ⅝″ at sill.

HARDWARE—For Swing Doors: All door hardware shall be furnished by door manufacturer.

Hinges shall be 5″ x 4½″ full mortise, template type. They shall be supplied 3 per leaf for doors up to and including 7′-0″ high and 4 per leaf for 8′ and 10′ high doors. Ball-bearing hinges shall be furnished for doors having door closers or subject to frequent use. Where frames are channel iron or other structural type, half-mortise hinges shall be furnished. Machine screws shall be used to attach hinges to doors and frames.

Mortise locks shall be escutcheon type with 1⅛″ diameter cylinder and of standard Fenestra design and special heavy construction for steel doors. They shall have a 2¾″ backset and heavy bronze fronts 8″ x 1¼″, Government standard strikes, bronze Government type 201 knobs (T-lever handle optional) and wrought-bronze escutcheons. Finish shall be bronze US No. 10 or anodized aluminum US No. 28. Cylinder locks shall have a protected front.

Key-in-knob type locks shall provide all conventional functions in one standardized machining and shall be self-lubricating with Oilite bearings, and shall carry Underwriters' B Label. Finishes shall be bronze US No. 10 or anodized aluminum US No. 28, U. S. Govt. Series 140.

Tee latches, where required, shall be of heavy steel construction with black finish.

Top and bottom bolts shall be supplied for inactive leaf of all double doors. Door checks, where required, shall be Government standard type 3001 in sizes as required.

For slide doors: All door hardware shall be furnished by door manufacturer, packaged and shipped separately for attachment in the field.

Hardware shall include all necessary track, track brackets, trolleys, hangers, hasp and staple, hand pulls, floor guides, door stops, etc. (General contractor shall provide for installation of ⅜″ bolts and nuts, as indicated on door manufacturer's diagrams, for attachment of track equipment.)

FRAMES: (For swing doors only, except 5′ x 10′ door leaves; not furnished for sliding doors.) Frames shall be No. 16-gauge rolled steel, formed with integral stops and rebates. Frames shall be 5½″ wide, and 2″ on inside and outside face. Jambs shall be constructed to set on finished floor. Sill anchors shall be furnished to set on finished floor or 1″ below.

Frames shall be shipped knocked down and shall be machined for attachment of hardware, including mortising, reinforcing, drilling and tapping for hinges and strike plate. Jamb anchors shall be included.

LOUVERS:(if required). Louvered panels (surface or pierced type—specify which) shall be provided. A 14-18 bronze mesh fly screen shall be included. Louvers shall supply free air space as follows: 2′-0″ door, 34 sq. in. (surface), or 27 sq. in. (pierced); 2′-6″ door, 34 sq. in.; 2′-8″ and 3′-0″ doors, 55 sq. in. (115 sq. in. also available on panel door only); 3′-4″ door, 82.5 sq. in. (surface) or 69 sq. in. (pierced); 3′-8″ and 4′-0″ doors, 82.5 sq. in.

FEN-AIR LOUVERED DOORS (Panel doors only)—Fen-Air Louvered Doors shall be equipped with full louvers in (lower, upper or both—specify) panel openings. Louvers shall be inverted-V-shape fin-type, 1″ thick overall with pressed metal frames lapping the full panel openings of door. Louver panels shall provide free air space as follows:

2′-8″ x 6′-8″ doors, 420 sq. in. (upper), 375 sq. in. (lower);
2′-8″ x 7′-0″ doors, 480 sq. in. (upper), 375 sq. in. (lower);
3′-0″ x 6′-8″ doors, 500 sq. in. (upper), 450 sq. in. (lower);
3′-0″ x 7′-0″ doors, 570 sq. in. (upper), 450 sq. in. (lower).

VISION LIGHTS: (if required). One vision light 10″ x 10″, unglazed shall be installed in upper metal panel.

SHOP FINISH: All doors shall receive one shop coat of baked-on metallic primer before shipment. Frames shall be bonderized and receive one shop coat of baked-on metallic primer before shipment.

ERECTION: Doors and frames shall be erected plumb and true, with all hardware left in proper working order. Erection shall be done by a competent door erector and in accordance with door manufacturer's instructions.

GLASS AND GLAZING: (To be inserted in the general "Glazing" specifications.) Glass shall be ¼″ thick, bed puttied and held in place by continuous glazing moldings furnished by the door contractor.

hollow metal door units

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